ISBN / EAN

978-90-6464-605-8

GRAFISCH ONTWERP

Bas Reijnen, Nijmegen

Khadija's Legacy
Women's employment in Muslim countries

Proefschrift ter verkrijging van de graad van doctor aan de Radboud Universiteit Nijmegen op gezag van de rector magnificus prof. mr. S.C.J.J. Kortmann, volgens besluit van het college van decanen in het openbaar te verdedigen op maandag 3 december 2012 om 13.30 uur precies, door

Cornelis Hubertus Bernardus Maria Spierings

geboren op 2 mei 1983 te Oss

PROMOTOREN

Prof. dr. R.H. Lieshout
Prof. dr. M.M.T. Verloo

COPROMOTOR

Dr. J.P.J.M. Smits

MANUSCRIPTCOMMISSIE

Prof. dr. M.H. Leyenaar (voorzitter)
Prof. dr. W.H.M. Jansen
Prof. dr. S. Walby (Lancaster University)

Table of content

Voorwoord (Preface in Dutch)

Dit proefschrift zal openen met het verhaal van Khadija, de vrouw die volgens de overlevering cruciaal was voor Mohammed om te bereiken wat hem ten doel was gesteld. Zij was een leermeester voor hem. Zij was een schouder. Zij geloofde in hem. Ook dit proefschrift had ik zonder de hulp, de steun en het vertrouwen van de mensen om mij heen nooit kunnen voltooien

Het gedrukte proefschrift zoals het er nu ligt, daarvoor ben ik dank verschuldigd aan twee mensen die hun (creativi)tijd met mij hebben willen delen. Sjors, wat ben ik blij dat jij zei een bibliografie maken 'leuk' te vinden. Er staat altijd een kop thee klaar voor een gezellig of goed gesprek. Bas, jouw passie voor lettertypes en het kunnen doorstaan van mijn kritiek op kommaniveau is roemenswaardig. Ik hoop dat je net zo blij bent met het eindresultaat als ik. Laat je me nu de komende zondagen gewoon weer rustig lezen?

Binnen de opleiding Politicologie aan de RU kreeg ik de kans en de ruimte om les te geven en ook de ruimte om daarin mijn eigen weg te vinden. Voor het creëren van die ruimtes dank ik in het bijzonder Bob, Anna, Mieke, Jeroen, Karen en Monique. Door 'mijn' studenten ben ik gedwongen zaken scherp te stellen en ze zorgden voor de (on)nodige afleiding. Ik ben ontzettend trots op jullie groeiende kritische geesten en de openheid die we samen creëren in deze opleiding. Van deze ervaring en sfeer is mijn proefschrift zeker beter geworden.

Dit brengt me ook meteen bij mijn collegae (en soms oud-docenten). Binnen Politicologie alsook binnen de 'groep Jeroen' bij Economie heb ik kunnen wortelen. Ik waag me hier niet aan het noemen van namen, maar jullie weten hoe goed ik mij voel in Nijmegen en ik heb veel van jullie geleerd. De RU is voor mij een plek waar analytisch denken centraal staat, waar we ons scherpen aan elkaar, waar ik ondanks enig groen achter de oren serieus genomen ben, en waar we ook simpelweg plezier hebben.

Specifiek rond het schrijven van dit proefschrift dank ik de collegae die me in een proefpromotie hebben voorbereid op de openbare verdediging met hun helse vragen, en de aio's van grofweg 'onze generatie' met wie ik lief, leed en borrels heb gedeeld tijdens, of beter na, het schrijven. Ellen, Gerry, Janine, Kristof, Marco, Sandrino, Saskia, Stijn, Yvette, jullie zijn toffe mensen.

Het borrelen heeft zich echter niet beperkt tot collegae. En waar ik zeker af en toe wat meer tijd aan mijn vrienden had willen besteden, prijs ik me vooral gelukkig aan de sterke band die we hebben en de afleiding en steun die jullie me geven. Meike, mijn ethische kompas, het vertrouwen dat jij en Annemarie me hebben gegeven is onmenselijk menselijk. Hopelijk blijf je je ongezouten meningen en waarnemingen met me delen. Wilma, er moet toch ergens een aardlijn lopen die ons in één huis bracht. Ik bewonder je kracht, vrijheid en positiviteit, en hoop daar van te blijven leren. Oh ja, en voor elke afwasbeurt, mag je gewoon een whiskey pakken. Monique, behalve mijn 'oudste', ben je ook mijn meest directe vriendin. Menig kapsel, schoeisel en kledingstuk heb je afgekeurd en juist daarom ben ik zo op je gesteld. Nog lang zul je mijn reality check zijn, ook al luister ik zo slecht. Karen, de enige persoon waarmee ik steeds in de slappe lach schiet en met wie het tegelijkertijd zo vanzelfsprekend is om onzekerheden te delen. Wat ben ik blij dat je me toen bij de inschrijving uit de rij plukte. Bart, Ralf, Rick en Rogier, al langer dan ons halve leven zijn we ook een geoliede groep met allemaal een eigen rol, eigenaardigheden en onderlinge banden. Onze verschillen en gedeelde geschiedenis zijn me erg waardevol. Nog menig weekeinde hoop ik lekker een boek te lezen terwijl jullie voorbij komen mountainbiken.

Waar ik wellicht her en der iemand te weinig aandacht heb gegeven, stonden mijn (co) promotoren altijd voor mij klaar en gaven ze richting waar nodig. De hoeveelheid vertrouwen en de vrijheid die jullie me hebben geschonken vind ik bijzonder. Bob, het ontvangen van de hoofdstukken met jouw commentaar was altijd spannend en je kritiek haarscherp. Dat moet je menig rode pen gekost hebben. Ook was je een strenge procesbewaker, maar met een zeer menselijke kant als het nodig was en dat waardeer ik enorm. Heb ik je weten te verleiden om ooit nog eens statistisch onderzoek te doen? Jeroen, het is niet overdreven om te zeggen dat jij mijn grootste leermeester bent geweest in statistiek en databewerking, en je hebt me geleerd de o zo belangrijke artikelen te schrijven. Aan het begin van het proces kende je me niet en je kon toen niet weten hoe eigenwijs ik zijn kan; later wel. Toch heb je me gaandeweg veel ruimte

gegeven om mijn weg te gaan en hebben we regelmatig samen zitten discussiëren over hoe iets aan te pakken. Voor mij is dat een heel belangrijke 'vote of confidence' geweest. Dank voor alles! Mieke, jij hebt voor mij een deur geopend waarvan ik het bestaan niet kende. Gezien het plezier dat ik aan de universiteit beleef, hoop ik dat ik ooit een vergelijkbare rol voor een of meerdere studenten mag vervullen. Als promotor viel je vinger altijd op de zere plek als ik even vast zat met een paper of hoofdstuk, en ook in onze gesprekken over 'het leven' wist je mij als geen ander te analyseren. Ik maak graag met respect en bewondering een diepe buiging voor je, als wetenschapper en mens.

Dan mijn paranimfen en zo veel meer. Kristof, je bent de laatste collega hier in het rijtje, maar je bent bovenal een hele goede vriend. In wetenschap, spel en discussie een ware uitdager; op andere fronten een steun en toeverlaat. Je hebt zo'n beetje elke persoonlijke en professionele crisis van me meegemaakt en er was altijd tijd voor koffie of zelfs een verplicht tripje naar de stad. Dat de muntthee nog rijkelijk mag vloeien.
Het belang van mijn evenknie, mijn zusje krijg ik hier simpelweg niet uitgedrukt. Voor Mohammed was er eigenlijk maar één Khadija; ik kan en wil me geen leven voorstellen zonder Rieke. Als twee deviant cases hebben we onze eigen weg weten te vinden. Dat is niet altijd makkelijk, maar met z'n tweeën een stuk leuker en ook wat beter te doen. Ik kan je niet noemen om een specifieke reden, maar enkel om je zijn.

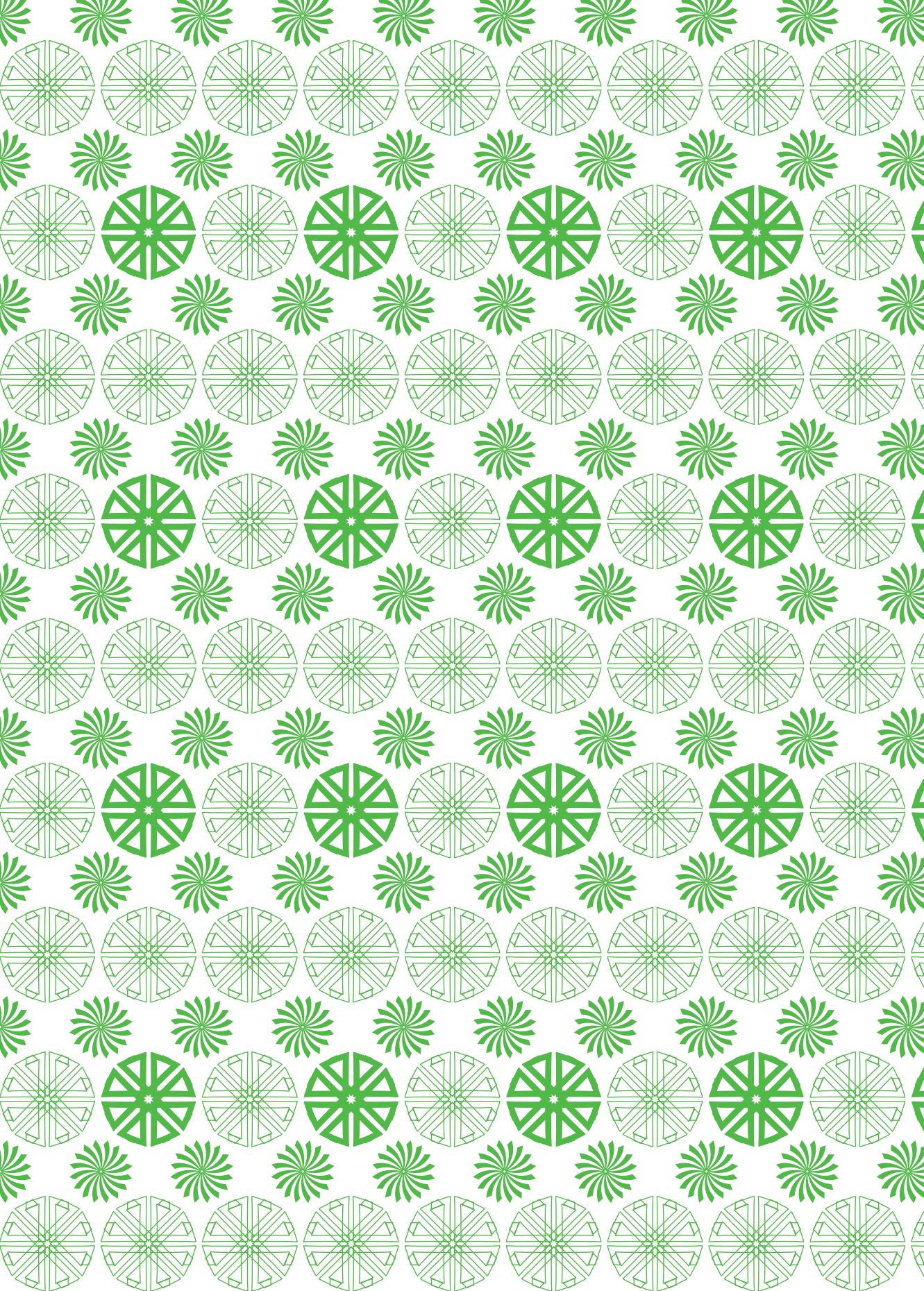
En dan rest mij enkel nog te eindigen met de mensen waar het allemaal begon: ons pap en mam. Ondanks onze rare nukken, komen jullie op voor je kinderen en staan achter ons. Jullie hebben ons de ruimte en middelen gegeven om te zijn wie we zijn en ons te ontwikkelen, ook al is het soms – tenminste dat stel ik me zo voor – moeilijk om te begrijpen wat ons drijft en hoe ons leven er uit ziet. Van jullie heb ik ook meegekregen dat het niet moeilijk is om voor andere mensen klaar te staan. En wat blijkt, die anderen staan ook klaar voor jou als het nodig is, soms zelfs vrij onverwachts. Meer dan ooit hebben we dat begin dit jaar gemerkt. Het laatste rondje wijzingen aan dit proefschrift heb ik – ter afleiding – doorgevoerd in de familiekamers van de intensive care van het UMC St. Radboud, een aantal extreem zware dagen. Al met al bleek het geluk toch aan onze kant, en nu maken we gevieren mijn promotie mee alsook de start van Auke zijn leven. Ik ben ontzettend trots op jullie en ik weet dat jullie dat ook op ons zijn.
Tegeltjeswijsheid of niet, zo'n proefschrift is echt maar relatief. Wat ik van de laatste jaren vooral zal onthouden zijn de warmte, steun en liefde van alle mooie mensen die me zo dierbaar zijn.

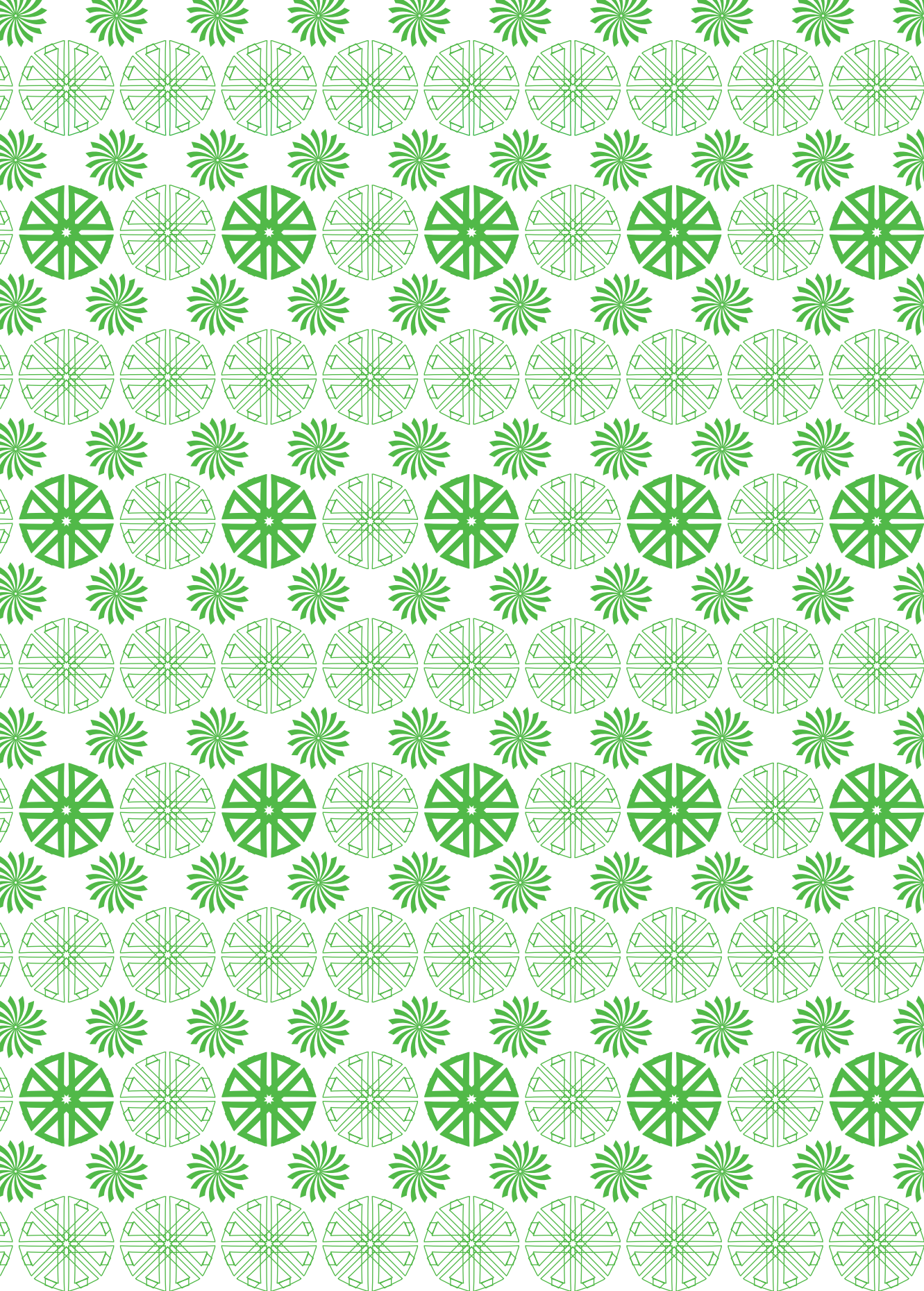
Niels
september/oktober 2012

Abbreviations

ANPP	All Nigeria People's Party
APP	All People's Party
CA	Central Asia
CE	The Common Era
CIA	Central Intelligence Agency
CMM	Centre for Multilevel Modelling
DDW	Database Developing World
DHS	Demographic and Health Surveys
DIC	Deviation Information Criterion
DK	Do not know
FDI	Foreign Direct Investments
FGM	Female Genital Mutilation
GAD	Gender and Development
GDP	Gross Domestic Product
GDP/c	Gross Domestic Product per capita
GID	Gender, Institutions and Development
GME	Greater Middle East
hhh	Head of Household
IDN	Indonesia
IGLS	Iterated Generalised Least Squares
ILO	International Labour Organization
IPUMS	Integrated Public Use Microdata Series
ISSA	International Social Security Association
IMF	International Monetary Fund
KMO	Kaiser-Meyer-Olkin
MCMC	Markov chain Monte Carlo
MDG	Millennium Development Goal
MENA	Middle East and North Africa
n.a.	Not appropriate
NGA	Nigeria
NOV	Needs, Opportunities & Values
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
O.R.	Odds Ratio
PAN	National Mandate Party (Partai Amanat Nasional)
PAPFam	Pan Arab Project for Family Health
PBB	Crescent Star Party (Partai Bulan Bintang)
PBR	Reform Star Party (Partai Bintang Reformasi)
PKB	National Awakening Party (Partai Kebangkitan Bangsa)
PKS	Prosperous Justice Party (Partai Keadilan Sejahtera)
PPP	United Development Party (Partai Persatuan Pembangunan)
ref	Reference category
s.d.	Standard deviation
s.e.	Standard error
SAP	Structural Adjustment Program
SEA	Southeast Asia
SFT	SIow Fertility Transition survey
SSA	Sub-Saharan Africa
UNDP	United Nations Development Programme
UoA	Unit of Analysis
UoO	Unit of Observation
USSR	Union of Soviet Socialist Republics

WDI	World Development Indicators
WFB	World Factbook





1 This account of Khadija's life and role in Muhammad's was derived from several sources: Abdolah (2008: 40), Ahmed (1992: 42–3), Andersen, Seibert & Wagner (2012: 165), Geaves (2006: 58), Jansen (2009: 24–26), Mernissi (1993: 152–3), and Moghadam (1988: 223).

Chapter 1

Introduction
Disconnected knowledge

1.1 KHADIJA: THE FIRST – ECONOMIC INDEPENDENT – MUSLIM

She was born in the year 555 CE and was said to be both beautiful and wealthy, coming from a successful business family, and being the widow of a rich merchant. She was Khadija bint Khuwaylid, Muhammad's first wife. After having lost her second husband, she led her own trade business. Laws did not prohibit public activities for women and as a widow, Khadija had the authority to make her own decisions. The young orphan Muhammad was one of the agents this economically independent woman hired. He, Muhammad, turned out to be gifted. At the age of forty, Khadija decided to ask Muhammad (25) to marry her. This is how she became his first wife.

Khadija also became the first Muslim. When Muhammad received his first revelations, Khadija is said to have been of great moral support and encouraged him in his endeavour, besides learning him to read and write. Her wealth (housing, network, resources) gave Muhammad the opportunity to perform the task he believed was assigned to him. Till her death (619 CE), Muhammad did not marry another woman.[1]

Khadija's story seems contradictory to our common belief as well as the scientific knowledge about the (economic) position and role of women in Muslim cultures. Inglehart & Norris (2003a: 68–9, 73) conclude that "the real fault line between the West and Islam … concerns gender equality and sexual liberalisation. … Today, these divergent values constitute the real clash between Islamic societies and the West." Hirsi Ali (2006: xi) substantiates this by saying that "Islam is … a culture in which women were the property of their fathers, brothers, uncles, grandfathers, or guardians. The essence of a woman is reduced to her hymen. Her veil functions as a constant reminder to the outside world of this stifling morality that makes Muslim men the owners of women". On the specific topic of economic participation, scholars have drawn similar conclusions: "Islam, with its strong emphasis on separate spheres for men and women … ha[s] blocked women from acknowledged entry into the paid work force" (Clark, Ramsbey & Adler, 1991: 59–60); and "obstacles to female participation include religion … Religious norms … discourage female labor force participation most strongly in Islamic countries" (Lincove, 2008: 50, 57).

When Islam is part of the public and scientific debate – and the last decades it often has been – prominent politicians, opinion leaders, and social scientists do not shy away from making strong and wide-ranging claims, and often the ('dreadful') position of women in Islam and Muslim countries is involved. The simplistic (scientific) rhetoric deludes us into believing that we should focus on Islam as the single explanatory factor, whereas on many of the issues regarding the position of women in Islam or in Muslim countries our knowledge is still limited and patchy. I argue that truly to understand the position of women in Muslim countries, a comprehensive framework is necessary. A framework that starts from the complexity and interrelatedness of the many different influences, and I will develop such a framework for women's employment. Economic independence is one of the dimensions vital to the position and empowerment of women and, derived from this, paid employment (see Farah, 2006; Fergany, Jad, Abdellatif, Al-Kitbi, Farahat, Manna & Silini, 2006; Metcalfe, 2011; Moghadam, 2003). Thus, this study shall try to understand and explain women's paid employment status in Muslim countries, and in particular the differences among and within these countries.

Broadly defined, the 'Islamic civilisation' or the group of Muslim countries includes countries such as Indonesia and Iran, Somalia and Syria, Bangladesh and Burkina Faso, Tajikistan and Tunisia, the United Arab Emirates and Uzbekistan, and Saudi Arabia and Senegal.

There are great differences between the positions of women in these countries. For instance, women's participation in the non-agricultural labour market is said to range from around 5% in Algeria and Yemen, to about 50% in Brunei and Uzbekistan (Spierings, Smits & Verloo, 2009). Within the borders of each individual country, economic positions differ too: of the women living in Ouagadougou, to take Burkina Faso for instance, 65% is non-agriculturally employed, while this level is about 26% in the Hauts-Bassins region and 3% in the Eastern province (see Chapter 5). This diversity among and within Muslim countries seems to contest the claim that Islam is the most important aspect determining (limiting) women's employment positions in Muslim countries. Generalisations at the level of a 'civilisation' (e.g. Anker, 1998; Clark, 1992; Clark, Ramsbey & Adler, 1991; Huntington, 1993, 1996; Inglehart & Norris, 2003a, 2003b) clearly tend to ignore "'the internal dynamics and plurality' of Muslim nations" (Davis & Robinson, 2006: 167).

This diversity should not lead us to believe that the low levels of employment in some Muslim countries should be denied or ignored. Despite the fact that Muhammad's first wife Khadija – the first Muslim – was economic independent, an active entrepreneur and even Muhammad's employer (Ahmed, 1992), I realise that women's employment is relatively low in some Muslim and Middle Eastern and North African (MENA) countries (see also Fergany et.al., 2006; Moghadam, 2004; Spierings, Smits & Verloo, 2009). Also the average employment level is rather low. However, such an average obscures differences, and focussing too much on a low average draws attention away from important explanatory factors. Thus, the finding that employment levels are low can hardly be called a useful conclusion that helps to understand the position of women in Muslim countries. The diversity among and within Muslim countries does tell us that a more fitting explanation is needed. The academic and societal relevance of understanding why women's employment is low in some (parts of) countries and higher in others creates an ideal starting point for academic research.

1.2 THE ABSENT FIELD OF WOMEN'S EMPLOYMENT IN MUSLIM COUNTRIES

> *the Arab Middle East … has not figured prominently in the literature on women's employment and yet is fertile ground for … investigation (Miles, 2002: 413)*

Over the last decades, several scholars have articulated that research on the incentives and restrictions affecting women's employment in Muslim countries or in the Middle East, though badly needed, is lacking (e.g. Abu Nasr, Khoury & Azzam, 1985; Fergany et.al., 2006; Hijab, 1988; Kapteijns, 1998; Moghadam, 2003; Syed, 2008: 136). Parallel to these scientific cries for more attention – and parallel to the growing prominence of Islam and of Muslim countries in popular media after 9/11 –, the number of studies on women's employment has risen during the last ten to fifteen years. In that sense, the literature and our knowledge of this topic have been growing. However, the results of this growth have been limited due to the fragmented nature of this body of work.

The current literature on women's employment in Muslim countries is highly fragmented in terms of their levels of analysis (e.g. individuals, households, and countries), method (case studies, participatory observation, and statistical analysis), theoretical specificity (general or meta-theory to single variable-focussed theories), as well as their explanatory focus (economics, politics, religion, …). Although there are solid scientific studies on women's employment in Muslim countries, there is no comprehensive vision that helps us relate different parts of the literature to each other, that tells us how to proceed and identify the most pressing scientific problems.

The importance of such a vision is crucial to scientific progress, as is for instance shown in Kuhn's discussion of normal science. Kuhn (1996: 24) described normal science as "increasing the extent of the match between those facts [that the paradigm displays as particularly revealing] and the paradigm's prediction, and by further articulation of the paradigm itself." When there is a disagreement between the applied theory and observations, a problem is born (ibid: 32, 34). The work of 'normal scientists', then, is focussed on solving these problems. This process resembles the solving of puzzles, because the normal scientist is convinced that there is a

2 The journal *Feminist Economics* has planned a special issue on 'Gender and Economics in Muslim communities' in 2014.

3 This problem of fragmentation does not seem to be unique to women's employment (either in the Muslim countries, Middle East, or overall). Rosenberg & Howard (2008) in their review of feminist sociology see it in the whole field of sociology, due to the broad scope and many different explanatory foci when it comes to people in social structures (see also Stacey &Thorne, 1996).

4 These issues are not only discussed when women's employment in Muslim countries is studied, but they are also often found in the broader literature on women's economic position in developing economies.

solution to the problem that would eliminate any ambiguity and ultimately proves the existing theory to be valid (ibid: 36–43). Only by the identification of problems, an understanding of the world will be further advanced. In other words, a paradigm is needed as a guide and overarching set of rules that helps scientists to focus in the scientific enterprise: which facts to investigate, which theories to articulate and how to match facts and theory. In the case of a fragmented literature in which there is no common understanding of the studied phenomenon, we can speak of a 'pre-paradigm' period without reciprocal constructive communication.

The lack of conferences on the topic of this dissertation, the nonexistence of specialised institutes, and the absence of major journals' special issues all contribute to, and are indicators of, the absence of such communication.[2] For instance, Pettit & Hook observe that: "The polarisation of research on women's employment into traditions emphasising either micro or macro determinants of women's employment ignores the relationship between individual employment decisions and institutional conditions" (2005: 780). Pettit & Hook are talking about Western women's employment – a far richer literature in terms of publications – but this statement certainly holds for Muslim countries as well. In the same vein, Moghadam argues for a more comparative approach, which "is rarely applied to the Middle East, and even less so to women in Muslim societies in general" (2003: 2). Drawing on Kuhn, I argue that we need a comprehensive framework to connect the existing knowledge on women's employment in Muslim countries, and to identify scientific problems and puzzles in this area.[3]

Before I briefly introduce the basic principles of such a theoretical framework, I will illustrate the consequences of fragmentation for some of the most prominent issues in the literature on women's employment in Muslim countries: (1) the role of Islam; (2) the modernisation thesis; (3) the influence of education; (4) globalisation and shifts over time; and (5) the patriarchal gender contract.[4]

1.2.1 WHAT'S ISLAM GOT TO DO WITH IT?

One major strand in the literature on women's employment in Muslim countries focuses on the role of Islam from a global, comparative perspective: these studies – mostly quantitative research – compare the group of Muslim countries as a whole with other groups of countries in the world. The difference in averages between these 'civilisations' is then attributed to the negative influence of Islam. This is what I will call the 'civilisationist' school (this school includes works such as Anker, 1998; Clark, Ramsbey & Adler, 1991; Clark, 1992; Inglehart & Norris, 2003a, 2003b; Lincove, 2008; Yuchtman-Yaar & Alkalay, 2007). This civilisationist view is problematic on at least three counts.

Firstly, the reasoning or mechanism underlying this approach focuses on Islam as a religion of a very traditional nature with an ideology opposed to women entering employment, but rarely specifies how the traditionalism of Islam is translated from a worldview or ideology into the practice of women's employment. Is it by policy, by the personal views of the women themselves, by peer pressure, by laws? Distinguishing between the message and the way the message is transmitted can help us to understand the possible influence of Islam and may reveal that different Islams at different levels can simultaneously influence women, that Islam is multivocal (Badran, 2001; Spierings, 2007; 2009b). Part of answering the question how Islam might influence women's employment is finding the level at which it is (most) effective: that of society (through norms, religious laws, or state policies) or that of the individual (through religious beliefs and household decisions)?

Secondly, we may question whether there actually is a relationship between Islam and women's employment. According to some scholars, it seems that the differences between religions are overestimated because other important factors are not taken into account. For instance, the most traditional of the Muslim countries are the oil-rich and Arab countries (e.g. Ross, 2001; Stepan & Robertson, 2003), and women's employment is also said to be influenced by the Arab-Israeli conflict in the region (e.g. Khattab, 2002). At the individual level, differences between Muslim and non-Muslim women within a country might overlap with class and educational segregation differences (e.g. Droeber, 2003; Moghadam, 2003). Not taking these aspects into account might bias research results in favour of Islam as the single negative explanation.

Thirdly, we can question – in line with the two previous points – whether the existing empirical research (almost solely statistical country-level comparative analyses in which the percentage of Muslim is an explanatory factor) truly assesses the possible influence of Islam. Analyses limited to the aggregate level and to religious denomination as the single explanation are insufficient to support the conclusion that Islam has an unequivocally negative influence on women's employment.

1.2.2 MUSLIMS' MODERN WAY

In the last decades, modernisation has been regarded as an important driving force behind change in Muslim countries, and the position of women is often expected to have improved from this development, at least to some extent (e.g. Abu-Lughod, 1998; Jaquette, 1982; Lenski & Nolan, 1984; Lerner, 1958; Mernissi, 1987; Moghadam, 2003; Rukhsana, 2004; see also Jaquette, 1982; Walby, 2009: 24–35). However, there are different ideas about the specific role of modernisation and about its exact influence.

In their general theories on modernisation both Lerner (1958) and Inglehart (1997) suppose it to be fuelled by increased interaction between people, in particular with people from other social backgrounds. This increase is mainly due to technological advancement, industrialisation, urbanisation, mass media, and education. As a result, expectations and ambitions change, people become more critical (Lerner, 1958), and their values shift from traditional to secular-rational (Lerner, 1958; Inglehart, 1997). In this process, women are expected to enter the paid labour force (Inglehart, 1997). According to Lerner (1958: 89) the "secular trend [is] unilateral in direction – from traditional to participant lifeways". In Lerner's model, each country takes the same route to modernisation, only starting at different points in time. Inglehart agrees that modernisation is a global process, but he does draw attention to the existence of a cultural imprint: because cultural heritage has a lasting effect, countries at the same stage of industrialisation may not modernise to the same degree. The process of modernisation thus leads to parallel trajectories, not necessarily to converging values (Inglehart & Baker, 2000). In connection with this, Islamic culture is said to have the strongest negative imprint on the modernisation process (Norris & Inglehart, 2002).

Other scholars argue against the idea of one universal trajectory that leads to higher participation rates, either because some cultures or civilisations have characteristics that are completely incompatible with modernisation (e.g. Huntington, 1996; see also Walby, 2009), or because they believe there are different paths toward a modern society (e.g. Moghadam, 2003). Also, several important studies question whether industrialisation is always conducive to modernisation and whether modernisation is always conducive to women's employment. A first example is the classic article by Lenski & Nolan (1984), which shows that industrialisation has remarkably weaker effects in terms of fertility, education, and media in horticultural than in agricultural societies. Secondly, industrialisation can also harm the labour market position of women. The introduction of cash-crop agriculture has pushed many women out of the agricultural labour market, particularly in African countries (Bullock, 1994; Jaquette, 1982; Pampel & Tanaka, 1986). Thirdly, economic development and industrialisation based on oil revenues is said not to be conducive to female employment because of the type of industry it creates (male, labour extensive) (Moghadam, 1998; 2003; Ross, 2008).

1.2.3 SCHOOLGIRL

In many studies on employment in Muslim countries, or in developing countries for that matter, education is regarded as a very important factor in shaping people's employment opportunities (for Muslim countries see: Aromolaran, 2004; Assaad & Arntz, 2005; Glick & Sahn, 2005; Gunduz-Hosgor & Smits, 2008; Hirschman & Aghajanian, 1980; Khattab, 2002; Kuepie, Nordman & Roubaud, 2009; Moghadam, 2003). However, ideas about how, when, and what education is influential differ across the field.

Human capital theory is possibly the framework for understanding why education is important and for whom, which is articulated in most detail. Based on the work of Becker (1965; 1981) and Mincer (1962; 1974), both Aromolaran (2004) and Kuepie, Nordman & Roubaud

(2009) argue that people perform a cost-benefit analysis in deciding to work, weighing the opportunity costs of leaving the household against the wage benefits of a job. With education, people's productivity rises and they will find better-paying jobs, which can then outweigh the additional opportunity costs of leaving the household. For instance, the increase in wage due to a higher educational level can cover the costs of letting someone else take care of household tasks.

However, other parts of the literature suggest that education does more than just raise one's income. It also means having more opportunities in terms of suitable jobs (Lincove, 2008), it is said to decrease fertility (Olmsted, 2003), and it may shift peoples' ambitions and value patterns towards personal development (Azam, Abu Nasr & Lorfing, 1985; Hirschman & Aghajanian, 1980; Lincove, 2008).

Regarding the level of education, there seems to be a general agreement about the strong and positive influence of tertiary education, whereby some studies also mention the strong potential of secondary or non-academic education (Assaad & Arntz, 2005; Khattab, 2002). The latter types of education's effects are less obvious in the literature, however. Furthermore, several studies argue that primary education actually leads to decreased employment: what is learned in primary school is more beneficial to the role of housewife and mother, and has less value on the labour market. The opportunity costs of employment here become greater than the benefits of the job (Aromolaran, 2004; Kuepie, Nordman & Roubaud, 2009; Lincove, 2008).

Studies also suggest that education is not always conducive to all forms of women's employment. Thirty years ago Benería & Sen (1981: 298) already observed that: "Unless the systemic causes of unemployment are removed, women's education by itself is purely an individualist solution." According to Hirschman & Aghajanian (1980), education mainly encourages employment in the modern non-agricultural sectors. Calvès & Schoumaker (2004) find that it is paid employment in the traditional food and care sector instead, and Kuepie, Nordman & Roubaud (2009) speak of the encouraging of employment in the entire formal labour market. The presence of certain sectors and jobs might then also affect the added value of education, leading to different pay-offs of the same type of education in different areas (see also Miles, 2002; Pampel & Tanaka, 1986; Rani & Schmid, 2008; Tansel, 2002), but explanations of how labour market structures affect this added value are still underdeveloped. The same argument could be made for other contextual characteristics that are often ignored in understanding the effect of education, such as cultural norms (see Abu Lughod, 1998; Acar, 2006; Jansen, 2006).

1.2.4 THE TIMES THEY ARE A-CHANGING

A popular belief is that over time things will almost automatically change for the better: full employment of women will only be a matter of time, because modernisation is a linear process (see above), because globalisation will create more and more economic opportunities for women, and/or because the diffusion of equality norms is irreversible (e.g. Black & Rainerd, 2004; Gray, Kittilson & Sandholtz, 2006; Meyer, 2003; Richards & Gelleny, 2007; Villarreal & Yu, 2007). This almost devout belief heavily rests on two assumptions. The first assumption is that processes such as modernisation and globalisation take place in each part of the world and that these processes are largely unitary, which means that their effects all point in the same direction: towards increasing employment. The second assumption concerns the stability of effect through time: the effects of explanatory factors remain as strong in the future as they are now. Both assumptions are dubious, and doubting them in earnest raises new questions regarding the development of women's employment in the long run.

Regarding the first assumption, a closer look at globalisation may be insightful. Though the common denominator of globalisation definitions seems to be a focus on being less restricted by physical distances, it has become a container concept that includes phenomena as diverse as American cultural imperialism, economic liberalisation, and communicational closeness (television, internet) (cf. Moghadam, 2007; Scholte, 2001; Walby, 2009). These diverse aspects of globalisation can each have their own and different effect on women's employment. In this light, we should understand Moghadam's observation that 'globalization has given rise to

contradictory tendencies and trends' (2007: 2; see also Bergeron, 2001; Pyle & Ward, 2003). By doubting the first assumption, questions about the differential effect of various globalisation aspects can become part of our research agenda.

A tangible example comes from the IMF's and WorldBank's Structural Adjustment Programs (SAPs), which are expected to benefit women. It is expected that the increased economic competition and trade caused by the SAPs will lead to new labour market opportunities for women, who are generally low-skilled and a cheap labour resource (e.g. Meyer, 2003; Richards & Gelleny, 2007; Villarreal & Yu, 2007). However, this reasoning mainly focuses on the economic liberalisation side of the SAPs, while these programmes often also include privatisation measures. Studies – in particular on Egypt – have shown that women's employment opportunities declined due to privatisation because of cuts in the public sector (Moghadam, 1998; Nassar, 2003; Pyle & Ward, 2003; Posusney & Doumato, 2003).

Based on the second assumption – the idea that micro-level effects remain stable in direction and size through time – we might also expect strong increases in women's employment as long as we keep focusing on the driving forces behind women entering the labour market, such as increasing education levels and a decline in fertility. However, higher educational levels and lower fertility rates might be no guarantee for a future rise in employment figures. Will a further decline in the fertility rate lead to a similar increase in women's labour market participation as it has in the last decades? Hardly any attention is given to questions such as this and results are discussed under the assumption of temporal stability: the literature's implicit message is that effects do not change over time. On the topic of fertility we for instance see that empirically shown differences are ignored (e.g. Başlevent & Onaran, 2004), or that results are phrased in such a static way that they are easily understood as being valid for the future as well (e.g Khattab 2002: 103).

1.2.5 IF YOU WERE A WOMAN AND I WAS A MAN

One of the often-mentioned social institutions of Muslim and/or Arab culture that is considered to shape women's employment is the traditional family structure with extended patrilineal households (e.g. Fergany et.al., 2006: 173–4; Moghadam, 2003: 1; Read, 2002; 2004). Inspired by Pateman (1988) and the literature on Nordic countries, Moghadam (1998: 9) speaks of this issue in terms of a patriarchal gender contract, because that concept makes visible the taken-for-granted gendered structures in which multiple parties are involved (such as men, women, and the state). At the core of that patriarchal gender contract is the male breadwinner/female homemaker model (Moghadam, 1998; Kandiyoti, 1988). The importance of these roles is reflected in the effects of getting married and having children on women's employment. Women without male relatives who provide a certain income can much easier step out of the role of homemaker and enter the labour market. In families with children, women are generally supposed to take on the care-provider role, more so than when no children are present in a household. Therefore, having children lowers women's employment chances (e.g. Al-Qudsi, 1998; Aromolaran, 2004; Başlevent & Onaran, 2004; Glick & Sahn, 2005; Gunduz-Hosgor & Smits, 2008; Hirschman & Aghajanian, 1980; Khattab, 2002).

However, for societies in which the nuclear family is not the rule, as is the case in many of the countries studied in this thesis, the concept of a classic patriarchal gender contract with strict gender roles in the household division of labour suggests that other aspects of the household configuration can also be important in influencing women's employment. Thinking through the concepts of the patrilineal household and the male breadwinner/female homemaker model (see Moghadam, 2003), we can expect that women's employment is also influenced by whether the head of the household is a man (cf. Fergany et.al., 2006), the presence and number of other care consumers, care providers and income providers (cf. Spierings, Smits & Verloo, 2010; Spitze, 1988), the number of sons or brothers (cf. Miles, 2002), and the presence of adopted children (cf. Glick & Sahn, 1997). Some studies do include a variable related to one of these aspects, but despite the emphasis often put on the effects of patriarchy in Muslim countries, no systematic assessment exists that identifies the household structures through which patriarchy might influence women's employment.

1.3 CREATING A COMPREHENSIVE FRAMEWORK

If we take a closer look at the themes discussed above, we can derive at least five underlying issues that stem from the field's fragmentation: (a) causal mechanisms are underspecified and not related to other factors, in particularly when it comes to macro-level explanations (Islam, modernisation); (b) we know little about how the effects at the micro level differ among different geographical or temporal contexts (e.g. education, household structures); (c) general meta-level theories are barely translated to explanatory variables (e.g. modernisation, globalisation, patriarchy); (d) studies tend to be restricted to classic sociological and economic factors and variables. Other conceivably important explanatory factors are overlooked, because it is unclear where to look (e.g. household structures, Islamic institutions); and (e) there are no comprehensive systematic empirical analyses that test the general validity of results (household structures, education, Islam).

Progress regarding these five issues can be made, and further problems distinguished, by using the new comprehensive theoretical framework that will be presented, applied, and tested in this dissertation. This framework is expected to offer a better understanding of women's employment by identifying problems in the literature, providing solutions for contradictions found therein, and filling in its blank spots. The core elements of this framework are the following:

1) The world is conceptualised as a complex social reality in which different spheres of life are interconnected. For instance, economical circumstances are shaped by political decisions, cultural patterns create the boundaries of effective policy-making, economic developments influences cultural systems, and so forth and so on. These spheres are connected and shape each other, in Walby's terms, they co-evolve (2009: 90).
2) To understand women's employment it is crucial to understand who the acting agents are. The primary agent in my framework is the individual woman; she decides whether or not to enter the labour market and whether to accept a job or not. The secondary agent is the employer who decides to hire these individual women. Many other actors might influence the women's decisions or that of the employers, but they are not the decision makers who determine women's employment status.
3) To understand why decisions are made we must take into consideration the environment or structure surrounding the acting agent. For women's decisions there are four important levels in this structure: (a) the household level, which is the closest and most prominent contextual level. Household characteristics such as the family structure, partner's opinion, and household wealth all influence women's possibilities and (felt) responsibilities; (b) the community level, which becomes the dominant level the moment women set foot outside the door. Behavioural norms and the availability of jobs in the vicinity are for instance found at this level; (c) the country level, because it is the locus of policy-making, in particular regarding economic and gender policies; and (d) the global level, which accommodates economic, cultural, and political cross-border transactions such as foreign direct investments and (neo)colonisation.
4) Each higher level forms the context of the characteristics found at a lower level and of the relationship between those characteristics and women's employment. This means that characteristics at a certain level (a) can influence women's employment, (b) can influence another characteristic at a lower level that influences women's employment, and (c) can influence the extent to which a characteristic at a lower level influences women's employment.
5) At the heart of each causal mechanism explaining women's employment is a combination of three conditions: needs, opportunities, and values. By shifting the focus in understanding causal mechanisms from spheres or domains (economic, political, cultural, religious, and so on) to conditions, it is easier to see the underlying mechanisms. Therefore, I will be able to identify relevant factors, even if they seem not to fit neatly in one of these domains. Needs refer to the necessity felt by a woman (or employer) to do one thing over another, such as staying home to manage the household or entering the labour market because additional

income is needed. Opportunities capture the fit between the labour market and women's characteristics: are there suitable jobs/employees in the vicinity? Values focus on the norms in society and on the roles considered acceptable for a certain individual. Together these three conditions inform each and every decision. How they take shape can differ by context (see Chapter 3).

1.4 PUTTING THE PIECES TOGETHER: RESEARCH QUESTIONS AND METHODS

This framework will be presented in more detail in Chapter 2. The five core elements will help to gain insight into, and to answer important questions about, women's employment in Muslim countries. Three general questions are central to this thesis. The first is at the fundament of this study's goal to understand the differences between and within Muslim countries, therefore I will firstly have to chart this diversity in more detail:

1) What is the degree of women's employment in Muslim countries and how does it differ among and within these countries and over time?

The framework identifies the main levels where factors explaining the differences can be found and it provides a way of theorising the influences in terms of conditions and interrelatedness between levels. This corresponds with the second research question:

2) Which micro-, meso- and macro-level factors are the (major) determinants of women's employment in Muslim countries, and how do they influence women's employment?

In addition, the framework recognises that influences on women's employment should be seen as being embedded in a larger context that shapes these relationships, and it provides a way of conceptualising this context. This is what is at stake in the third research question:

3) Do the effects of explanatory factors of women's employment in Muslim countries differ in strength and presence according to time and space, and if they do, how and why do they differ?

The new theoretical framework, however, constitutes only part of my dissertation project. The empirical research to test the theory constitutes the other part. For this study, data sets for 28 Muslim countries have been crunched, synchronised, and combined, and subsequently used in multilevel regression analyses. In several chapters, these analyses are supplemented with accompanied by qualitative assessments of particular countries, histories or phenomena. The newly formed database contains information about women's employment, as well as the socio-economic characteristics of the women and their households, living environment, family structures, and their partners. The data will be used to measure the needs, opportunities, and values at the micro level. Some surveys also include information on religious denominations. In addition, the data indicate in which (sub-national) region women live, so also geographical differences within countries can be studied. Moreover, I will use the geographic information to aggregate information from the individual and household to the sub-national level. Data from the national level – and sometimes the district level – from other sources may complement the survey data. Based on a selection of the data (sets), each of the empirical chapters tackles a different substantial question related to the three main questions.

The overall theoretical framework – presented above in a nutshell – is applicable to different forms of employment, and translating the framework for different forms of employment might thus lead to different factors at the variable level. Yet, the empirical chapters all focus on one specific type of women's employment: paid non-agricultural employment. Agricultural employment and non-agricultural employment should be distinguished, because a single explanatory factor can create non-agricultural opportunities and at the same time decrease agricultural opportunities for women (e.g. Bullock, 1994; Hoodfar, 1997; Norris & Inglehart, 2002; Spierings, Smits & Verloo, 2009). I have chosen to restrict the explanandum to non-agricultural employment. Its opposites, being non-employed and being active in agriculture, are considered to be a 'default' option for women (cf. Fergany et.al., 2006; Nabli & Chamlou, 2004). Agricultural participation is mostly tied to living in a rural area and coming from a farming family. Entering the non-agricultural labour market is seen as an important and conscious decision, a step away from agricultural employment or being a housewife. Another reason for a focus on paid non-agricultural employment relates to empowerment issues. In general, employment tends to lead

to empowerment (e.g. Dworkin, Kambou, Sutherland, Moalla & Kapoor, 2009; Kritz & Makinwa-Adebusoye, 1999; Yount & Li, 2009), but not all forms to the same amount. Non-agricultural and paid employment is believed to lead to more empowerment than agricultural and unpaid employment (cf. Fergany et.al., 2006; Nabli & Chamlou, 2004). Furthermore, the agricultural sector is shrinking in terms of labour, whereas the combined labour demand of the industrial and the service sectors are growing or stabilising worldwide. For these reasons, I will focus on understanding and explaining women's paid non-agricultural employment in this study (a more detailed discussion of this is found in Chapter 4). As of here, when I use the terms women's employment, I mean women's paid non-agricultural employment, unless stated otherwise.

1.5 TEN MORE STEPS TOWARDS WOMEN'S EMPLOYMENT

Above, I have touched on the multitude of explanations for women's (non)employment available in the literature on Muslim countries. In Chapter 2, I will discuss the core building blocks of the new theoretical framework that should help overcome the diagnosed fragmentation and understand how different influences on women's employment are interrelated. The framework will be related to other useful and inspiring approaches – such as Walby's complexity theory (2009), the Gender and Development approach (see Rathgeber, 1990), Moghadam's studies of gender and social change in the Middle East (Moghadam, 1998; 2003), and Hijab's condition frame regarding women and work in Arab countries (1988; 2001). Their useful aspects are combined and enriched, leading to a coherent and guiding framework to which the five elements mentioned in Section 1.3 are central. The theoretical and conceptual specification of the dependent variable is also discussed in Chapter 2. In Chapter 3, the general hypotheses formulated in Chapter 2 will be translated to the context of Muslim countries to show how the framework, on the one hand, covers the existing knowledge on women's employment in Muslim countries and, on the other hand, identifies new factors that might influence women's employment, and how it relates to existing debates. Later on, in the thematic, empirical chapters (7 through 10), I will digress on theoretical issues, using this general framework in order to fill in blank spots.

Chapter 4 will focus on methods and data. Firstly, I shall briefly discuss the methodological premises that guide the choice and application of methods: diversity and complexity. Special attention will be paid to the role of generalisation and diversity in regression analyses, not only because mainstream gender and feminist research often regards quantitative research as overly generalising (cf. Harding, 1986; Lorber, 2006; McCall, 2005; Spierings, 2010, 2012a), but also because generalisation is an important issue in the debates about Islam. Subsequently, I will discuss the case selection and the characteristics of the specific method used in this study – multilevel regression analysis – and how this agrees with the methodological premises. In the next parts of Chapter 4, I will go into the surveys used and the additional data sources, as well as the specific measurements for the factors shaping the three theoretical conditions, including an extensive discussion on measuring women's (non-agricultural, paid) employment. This chapter will focus on the core data; variables specific to one of the thematic chapters will be discussed in that particular chapter.

The next six chapters will contain empirical analyses regarding women's employment in Muslim countries. The first two, 5 and 6, discuss general analyses that give an overall view and use data from 28 countries. Chapters 7 and 8 focus on a particular explanatory factor or cluster of factors (education and household configurations), also using data from all these countries. The last two empirical chapters (9 and 10) also focus on particular issues (religion and globalisation) but will focus empirically on a selection of countries.

Chapter 5 starts the empirical part of this thesis by describing the employment levels in 28 countries, rates ranging from less than 4% (Yemen 2003) to well over 45% (Kazakhstan 1999, Nigeria 2008). These figures shall be put into broader perspective by also giving an overview of women's employment figures for the over 380 total districts within the countries. Besides this, employment levels are discussed in terms of major differences between the almost 300,000 women, such as age, education, children, marital status, and the urban/rural divide. This descriptive information helps to chart the differences and similarities among and within the countries.

Chapter 6 builds on this and focuses on explaining women's employment differences among women, households, districts and countries. Using data for all the sampled women in the over 380 districts of 28 countries and applying four-level models, I test which factors affect women's employment probabilities, distinguishing more and less important factors, as well as direct and indirect effects. It will be shown how needs, opportunities, and values all play their part in shaping women's choices and position.

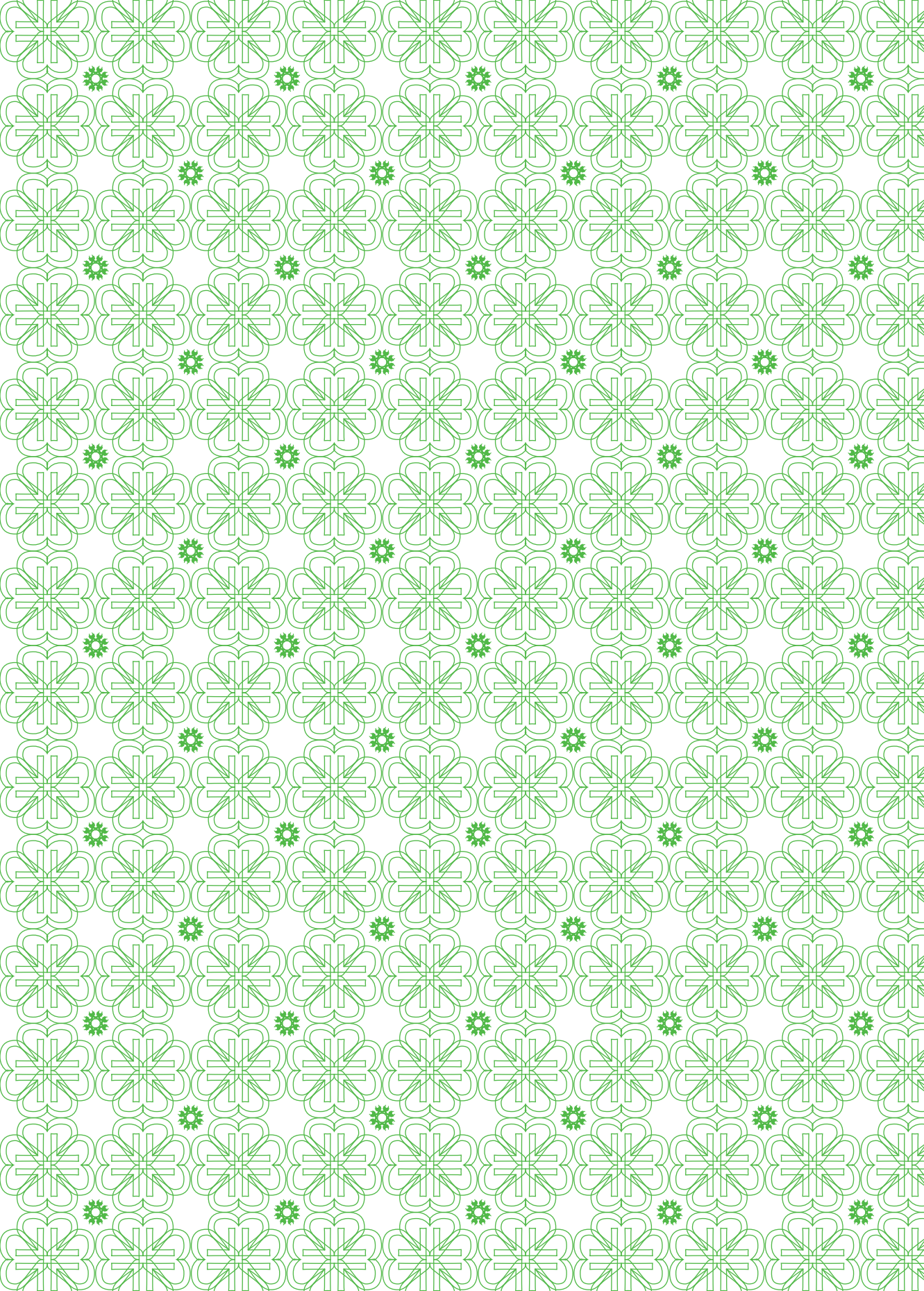
Chapter 7 is the first thematic chapter. Here I shall derive hypotheses from the theoretical framework about how the effects of education – one of the most important determinants identified in Chapter 6 – may differ according to characteristics of the context. For the full set of countries, interaction terms shall be added to the models presented in Chapter 6, showing how the effects of education differ, especially for the higher education levels.

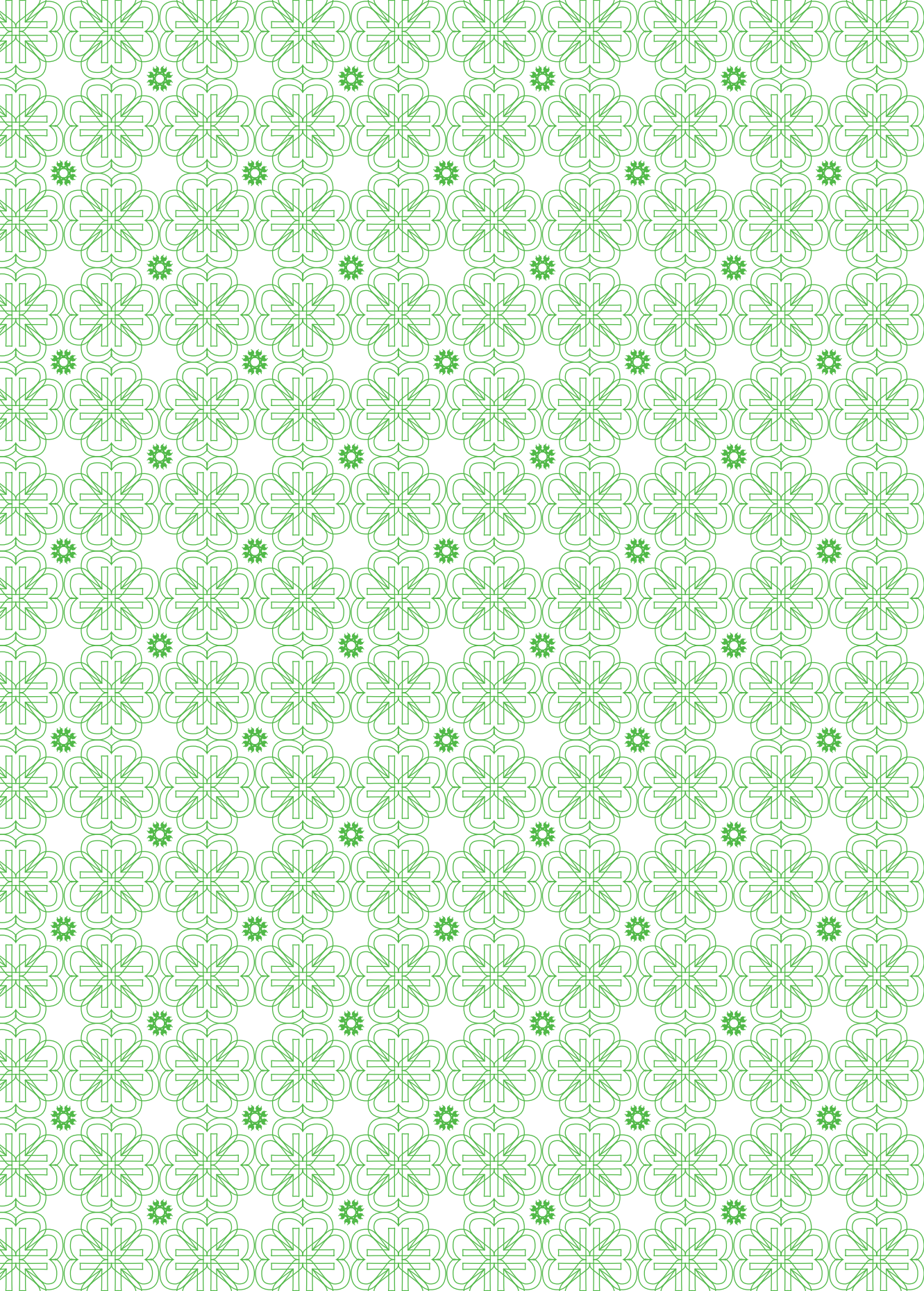
The issue central to Chapter 8 is which aspects of the household configuration are embedded in the values of patriarchal gender contract and how they shape the women's and households' needs and opportunities. This chapter illustrates how the comprehensive framework lays bare gaps in our knowledge as it links more general concepts and theories on patriarchy, gender, and development to variable-level constructs. Newly formulated expectations are tested by taking the models from Chapter 6 and adding new household-configuration variables that go beyond marital status and having children. It also tests whether effects differ by region in order to explore the possible different gender contracts that exist in different geographic and cultural-historic regions.

Whether and how religion (Islam) influences women's employment is the issue addressed in Chapter 9. There, I discuss the current line of thinking that mainly focuses on whether Islam has an influence, and subsequently shift the question to how Islam's influence might work. By applying the framework, I hypothesise that Islam can have different and contradictory effects at different levels. Empirical analyses on data for Indonesia and Nigeria test the newly formulated hypotheses and these analyses underscore the usefulness of a more nuanced approach. While the choice for Indonesia and Nigeria favours the 'civilisation' approach, I show that institutional variables are more helpful in understanding the influence of Islam than denomination-related variables as focussed on by civilisationists. The generalisability of some of these results is reflected upon by exploring the employment differences between Muslim and Christian women and regions in some other countries for which religion data are present in the surveys.

Chapter 10 examines the dynamics of women's employment from a longitudinal perspective, focusing on the common notion that over time everything will change towards greater gender equality. Specifically, two aspects of this are highlighted and reunderstood from the perspective of this thesis: the conceptualisation of globalisation as one positive driving force behind women's employment and the idea that micro-level factors' influences are stable over time. Empirically, I will firstly show that employment is not singularly rising. Then I zoom in on one country at the heart of the Middle East – Egypt – using data from surveys for four different years and a more in-depth analysis of women's employment in the country. Combining these sources will help to test the expectations derived from this thesis' framework that might explain the found discrepancy: globalisation's multifaceted impact and the temporally instable micro-level effects.

Chapter 11 concludes this study. The conclusions from the different empirical chapters are summarised in three notions: empirical diversity, structured multiplicity and generalised context-dependency. These general conclusions are discussed in more detail, and in doing so the three main questions as formulated in Section 1.4 will be answered. Subsequently, I assess the underlying theoretical framework of this thesis, and based on the results, I also discuss the more general theoretical, methodological, and policy implications of the research – including the five issues mentioned in this chapter (Section 1.2). Throughout the chapter suggestions for further research are given. Lastly, two more normative notes will close this thesis.





5 In this thesis, I will use the terms 'gainful' and 'paid' interchangeable. With both I indicate pecuniary remuneration.

Chapter 2

Theoretical framework
A holistic view on women's employment

2.1 PRESENTING AND POSITIONING A NEW ENCOMPASSING FRAMEWORK

As discussed in Chapter 1, there are scholars in different disciplines who study women's employment in Muslim countries or overarching issues. Although debates run and positions are taken in each of these disciplines, there is little communication between the various studies from these different traditions. To gain more knowledge about women's employment in Muslim countries, I have argued, it is necessary to formulate a more inclusive theoretical framework that outlines the fundamental mechanisms determining a woman's paid employment status,[5] and that makes it possible to understand the empirical reality of women's employment. Although this argument for a broader, less discipline-focussed approach is not new – and in this thesis I for example draw from multidisciplinary theories focussing on Arab women's employment (Hijab, 1988) as well as very broad social theories (Walby, 2009) – no satisfactory theoretical framework has so far been presented to address the issue at hand. Important as they are, none of the previously formulated theories is truly holistic in terms of how different levels are related, how general ideas relate to the factors determining participation, and how to establish whether important explanations might have been left out. In this chapter I will therefore present a new holistic view on the issue, taking into account the multilayered structure of society and conceptualising existing influences in terms of needs, opportunities and values.

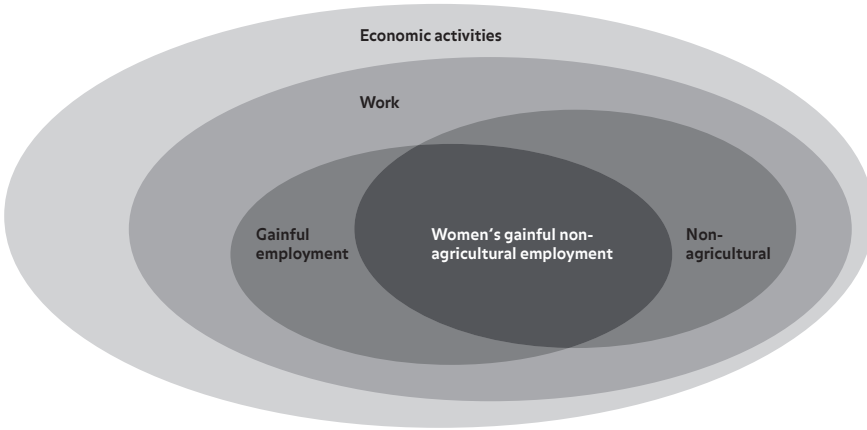
In discussing this framework I take positions in several debates in the literature on women's employment or situation in Arab, Muslim or developing countries, and the framework relates to more debates about more general social theories. Where relevant, I will relate my position to these debates in order to demonstrate how my theoretical framework originates from existing knowledge, circumvents current deadlocks and facilitates further communication between different disciplines.

The general framework as presented in this chapter might be translatable to other forms of participation or individual behaviours, but for now this thesis' focus is on women's labour market participation and specifically women's paid non-agricultural employment. Because the framework will be discussed in the light of that phenomenon or dependent variable, I will firstly define what I consider women's gainful non-agricultural employment to be, and discuss why I have chosen to focus on non-agricultural labour and gainful employment only (Section 2.2). After that, I will discus the main characteristics of the explanatory framework. Firstly, I discuss how the individual woman is the central to my model, who as an agent is embedded in a structure in which other agents participate (Section 2.3). The number and type of levels in this structure are subsequently discussed in Section 2.4, after which I will elaborate how the different levels relate to each other (Section 2.5). In the last section, I will return to the actors in the model – mainly focussing on the individual woman – and discuss the three conditions at the core of the actors' decisions: needs, opportunities and values. That section will conclude with seven general hypotheses. In Chapter 3, the theoretical position and general hypotheses presented in this chapter will then be translated into more specific hypotheses.

2.2 THE DEPENDENT VARIABLE: WOMEN'S GAINFUL NON-AGRICULTURAL EMPLOYMENT

To take the bull by the horns: by no means does this study claim or want to suggest that women's domestic, agricultural, unpaid, or informal activities are not part of women's productive life or do not (economically) contribute to the community. However, for reasons explained below, the focus in this study is on women's gainful (self-)employment in the non-agricultural sector.

Figure 2.1 From Economic activities to Women's gainful non-agricultural employment



6 As many Western-dominated institutions do, according to Adeley (2009: 112).

2.2.1 LABOUR, ECONOMIC ACTIVITIES, WORK AND EMPLOYMENT

In the debates about women's economic activities, many distinctions are made, discussed, ignored and mixed up: domestic labour vs. labour outside the domestic sphere, employment vs. self-employment, paid vs. unpaid labour, payment in cash vs. payment in kind, reproductive vs. productive work, subsistence vs. market labour, agricultural vs. non-agricultural work, and informal vs. formal labour. Uncovering an underlying structure among these distinctions will make clear what the scope of this study is. To do so, I will distinguish between 'economic activities', 'work' and 'employment', with each subsequent category more narrowly defined (see Figure 2.1), an approach in line with the major critiques from a gender approach to the classification of economic activities (see Anker, 1983; Benería, 1981, 1982; Chen, Sebstad & O'Connell, 1999; Donahoe, 1999; Jansen, 2004; Langsten & Salem, 2008).

'Economic activities' designates all the reproductive and productive activities of women. This thus includes household or domestic work (reproductive labour), because these tasks need to be taken care of in order to make productive labour possible. Reproductive activities therefore contribute to the production process and have an economic value, albeit not considered an exchange value in many concepts of labour (cf. Benería, 1982; Donahoe, 1999; Langsten & Salem, 2008: 283).

'Work' is the subset of 'economic activities' that lead to income or subsistence production: activities directly leading to covering the economic needs of a household. This definition comes close to what is generally considered to being active on the labour market and not being unemployed. The ILO conceptualises work in terms of being involved in the production of goods or services that contribute to national wealth and economic growth (Donahoe, 1999: 544). They further clarify this by stating that it

> *includes all production and processing of primary products whether for the market, for barter or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market, the corresponding production for own consumption. (ILO cited in Langsten & Salem, 2008: 284–5)*

While we should be critical of devaluing 'noneconomic' contributions, such as household care, and economic contributions that do not fit into preferred categories of wage-earning labour,[6] this thesis will focus on (subcategories of) work as dependent variable and not on other economic activities. The main reason to demarcate the type of activities focussing on is causal homogeneity, as will be elaborated in the next section.

Within the category of 'work', activities can be grouped along two dimensions. The first concerns the gains produced from the activities, with three possible options: being paid in cash or kind, production for one's own usage or performing unremunerated labour. The last has to do with different employment positions: being employed in a regular position, in occasional work, being self-employed, or working in a family business. Within the larger category of work, I will now define 'employment' as all 'work' that is both gainful in terms of cash paid for labour or products, thus leading to a more or less regular income; meaning that the woman regularly works and has an income. This excludes unpaid and occasional jobs, but not self-employment. Employment defined in this manner will be used as the explanandum of this thesis.

2.2.2 THE CAUSAL CONCEPT OF WOMEN'S GAINFUL NON-AGRICULTURAL EMPLOYMENT

The reason to define employment using a rather restricted concept centres around the notion of causal concepts: the definition and demarcation of a concept is partly determined by the context in which it is studied, because the latter determines which characteristics are crucial to its causal effects and determinants (see Goertz, 2006). The defining aspects of my definition of employment ('gainful' and 'non-agricultural') have certain specific qualities that are important in understanding (a) the effects it has on the position of women and (b) the mechanisms explaining labour participation.

7 Several positive societal effects of increased women's employment are registered as well: if relatively more women are active in productive employment, child mortality seems lower (Kishor, 1993) and economic growth increases (Klasen & Lamanna, 2009). The last authors show that especially the Middle East, North Africa and South Asia lost economic growth compared to for instance East Asia, due to more inequality in the labour market (on average a growth 1.1 percentage points less).

8 This is a summary of the story of Zineb Kadmiri, mother of Nour–eddine Saoudi – a political prisoner – , discussed in Mernissi's Sherehazade's weblog (2004: 115–8).

9 Jaquette (1982: 276–7) paraphrases Peggy Sanday, who also claims that that economic participation is a necessary condition to a high female status, but to come full circle in this logic, Sanday includes that it is not a sufficient condition (Sanday, 1974). By no means, do I want to claim it is.

10 This could be reason to make a distinction between paid and unpaid agricultural labour, but the second argument – about the social network – and the different causal mechanisms expected to influence women's entrance into the labour market for non-agricultural and agricultural labour have led me to make this conceptual distinction.

Regarding the effect on the position of women of employment, the central focus in this research is empowerment.[7] In this respect, the empowering effect of employment is aptly captured by the story of Zineb Kadmiri:

> *Like many women in Casablanca, Zineb Kadmiri weaved carpets. With her husband and children she formed a typical working-class family. She learned something about language in her education to become an upholsterer. Gradually her zest for work and ambition brought her economic independence: firstly through sewing, later by becoming a carpet weaver. Works of art is what she made and she sold more and more of her carpets. Her income was much higher than the salary she earned as a seamstress.*[8]

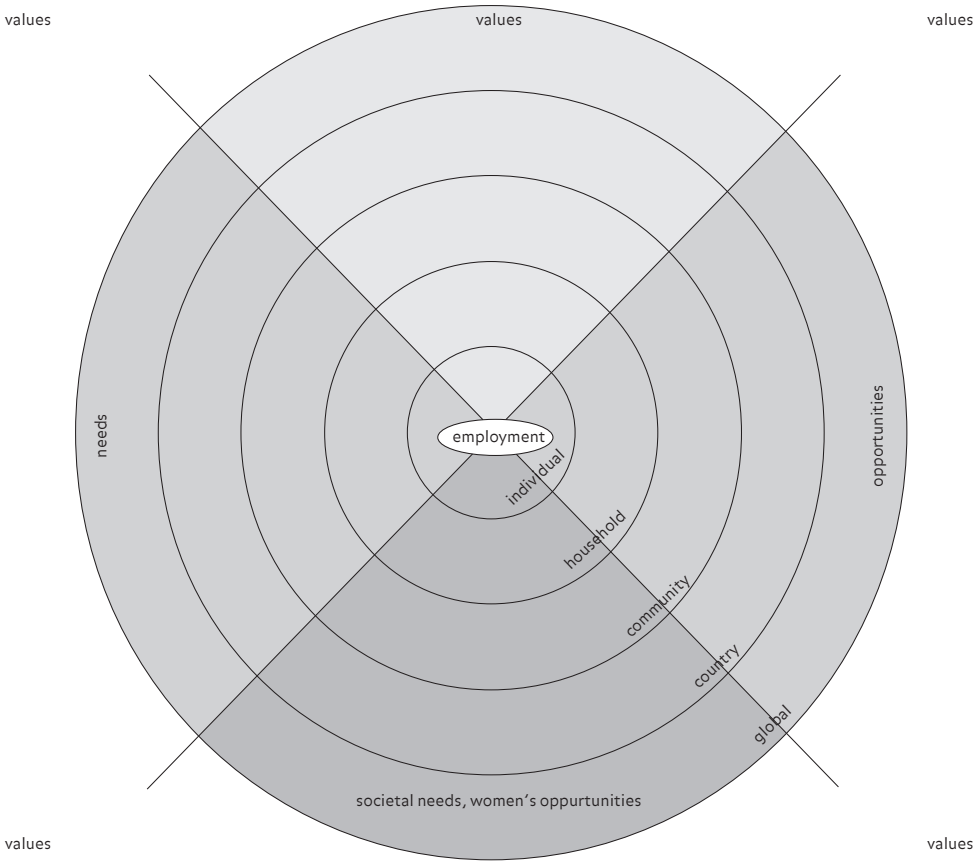
Through her labour, Zineb Kadmire became a successful artist (Mernissi, 2004) and gained economic independence (see also Dworkin, Kambou, Sutherland, Moalla & Kapoor, 2009; Kritz & Makinwa-Adebusoye, 1999; Yount & Li, 2009). More generally, Farah (2006) and Metcalfe (2011) see employment as a dimension of empowerment, and Moghadam (1990: 6) even says that remunerative work in the modern sector is a necessary condition for empowerment.[9]

When employment is considered in this light, it should however be noted that this relationship between employment and empowerment does not hold for all forms of employment, though it is said to be particularly strong for gainful (self-)employment. This is the case because, firstly, these kinds of jobs are believed to be more profitable and less vulnerable than unpaid and occasional jobs (e.g. Calvès & Schoumaker, 2004: 1351; Moghadam, 1998: 15–6, 69). Several studies have shown that women's autonomy goes up due to paid employment (Anderson & Eswaran, 2009; Kibria, 1990; Wolf, 1990). Spitze (1988) also finds that employment fosters both physical and psychological health. An independent regular income can enable women to make decisions about purchasing items without asking their husband for money and it generally increases women's bargaining power (see Adely, 2009: 114; Afshar, 1998; Gray, Kittilson & Sandholtz, 2006: 297; Olmsted, 2005). Contrary to this, agricultural labour almost exclusively entails working at the family farm without payment (Moghadam, 1998: 69, 78).[10] Secondly, when women enter the (labour) market as part of the public sphere they are able to build a larger social network, learn from their job or colleagues and exchange experiences. For instance, Adely recollects from her fieldwork in Jordan that: "many of the teachers with whom I spoke found that working outside the home gave them the opportunity to socialise with peers and colleagues. Asked if she would like to retire, Mariam, a science teacher, said no because 'I would become too isolated if I stayed at home.' "(2009: 114). Moghadam adds that through "employment women become active participants in society, organise and mobilise themselves" (1998: 3).

Thus the type of employment is a characteristic that divides work in groups according to its empowering potential. In this study I have selected the category of non-agricultural and gainful employment, because this is said to have the greatest empowering potential. I do not claim that employment always leads to empowerment. Some positions might harm women's empowerment, because, for instance, women get trapped at the bottom of the labour market hierarchy (Elson, 2009: 44). However, the overall trend that non-agricultural paid employment does empower women, is enough reason to try to increase our understanding of what influences employment.

In terms of developing an explanatory theory, however, not only the causal effects discussed above, but also the causal mechanisms explaining it are important. Different forms of work are influenced by different factors, or influenced differently by one and the same factor (e.g. Bullock, 1994; Donahoe, 1999; Norris & Inglehart, 2002; Spierings, Smits & Verloo, 2009). In this respect, the difference between agricultural and non-agricultural work seems most important. Women living in a rural area are almost by definition active in some form of agricultural work. Not that they made a very conscious decision to enter the agricultural labour market, but because helping on the family farm is the 'default' option for these women; just as it is the 'default' option for women in urban areas to stay at home or get involved in home-based work and not to seek employment (Spierings, Smits & Verloo, 2010). As agricultural work is often considered an extension of a woman's domestic responsibilities, it does not go against the dominant norm in

Figure 2.2 A holistic meta-level framework for explaining women's employment in Muslim countries



rural areas, while other forms of work do (Azzam, Abu Nasr & Lorfing, 1985: 18; Jansen, 2004). In other words, for both women working on a family farm and for housewives not being employed the step to being non-agriculturally employed is rather similar (Azzam, Abu Nasr & Lorfing, 1985: 30–1; Spierings, Smits & Verloo, 2010).

In this study, I set out to understand the forces influencing women's gainful non-agricultural employment, and the framework discussed below is developed with that purpose in mind. However, this framework's development is grounded in broader debates. Thus, while this study focuses on only one form of women's economic activity, it might still be used as a springboard to understanding influences on other types of economic activities – the presented meta-level framework can be translated to all kinds of (economic) activities.

2.3 FROM DEFAULT TO EMPLOYMENT: THE AGENT-STRUCTURE DEBATE

Conceptually, I do not see the change from not being employed (the state in which we are all born) to being employed as a singular switch, but rather as a process that involves two crucial steps (1 and 2) and three decisions (A, B and C). Firstly, if a woman wants to find a job, she needs to enter the labour market. That is step 1 and decision A, made by the woman herself. In the decision-making process, the woman is surrounded by structures and other agents (see section 2.4), but she is the primary actor. What others deem acceptable – other household members, social norms, governmental policies or laws – can be very important in this respect, but even in the hypothetical case that death is the punishment for being employed, seeking a job or not is a decision that can only be made by the woman, unless she is an automaton without any form of agency.

Secondly, once on the labour market, the woman needs to find someone to pay her for her labour. This is step 2 and involves decisions by two main actors: one by the woman to accept a certain job or start a business (B) and one by the employer or customer to pay for the woman's (fruits of) labour (C). The first is again decided by the woman (B); she may have little choice because she is the only one in the household who can provide an income, but she can still decide not to accept a certain job. In this decision, she might be influenced by which jobs are considered acceptable. Whether she is considered suitable for the job or whether customers buy her products is ultimately decided by the employer/customer (C), who is also subject to external influences. These two steps are not unrelated – for instance, a woman can decide to take a job and enter the labour market at the moment she is invited to start working for a company – but to understand the theoretical mechanisms it is important to disentangle the two conceptually.

From the two steps it takes from being outside the labour market to being employed, it can be derived that both structure and agency play important roles in understanding women's employment. It also becomes clear that the principal agent is the woman, who lives in specific structures (in Figure 2.2 the individual woman is literally place in the centre). Before the Gender and Development (GAD) approach was introduced, women were often portrayed as "passive recipients" in the development literature and discourse (Rathgeber, 1990: 494, see also Hakim, 1991; Walby, 2009: 72). In the literature on women's employment in Muslim countries, this tendency still exists. One leading scholar, Moghadam, for instance, builds on the GAD approach (2003: 33–4), but hardly pays attention to a woman's agency:

> *The theoretical framework that informs this study rests on the premise that stability and change in the status of women are shaped by the following structural determinants: the sex/gender systems, class, and economic development and state policies that operate within the capitalist world system. (2003: 14, emphasis added)*

Another common practice, as others such as Archer (1988) and Walby (2009: 71–5) also observed, is to conflate structure and agent, which leads to a poor understanding of the causal mechanism explaining women's employment status. In this respect I would like to stress that whereas it seems logical to separate agent and structure, this is often mistakenly equated to the individual woman (agent) and the context (structure). I argue for a better understanding in which women are not the only agents, and in which both structures and agents make up the context. These

Box 2.1

- A woman makes the choice [to enter the labour market // to accept a job] based on her assessment of the desirability of doing so. If the overall desirability is higher than the desirability of not [entering the labour market // accepting a job], she will choose to do so.[1]
- In determining the desirability, the woman's decision is influenced by (her perception of) whether other agents in her surroundings regard [entering the labour market // accepting a job] as desirable.
- A woman's potential [customer // employer] will pay for the product that that woman offers, based on that person's assessment of the desirability of doing so. If the overall desirability to pay for the woman's product is higher than the desirability of not doing so, the potential [customer // employer] will choose to do so.

1 By using the word assessment I do not imply that this is always a rational and explicit cost-benefit analysis. The assessment can also be based purely on a feeling or a divine calling an individual has (had), which tells that person that she or he should do this. This goes for the third bullet as well.

11 These are the theoretical levels which should be considered in pinpointing the influences on women's employment, they are not by definition similar to the levels of measurement or the levels at which variables have to be analysed. For instance, the global level will often be analysed by assessing differences between countries with regard to their position in the global systems.

agents, such as partners, employers and politicians, are not the primary focus of my framework but can play an important role in shaping a woman's employment status because they are part of the context. Each of these actors makes decisions that might shape a woman's needs, opportunities or values and thereby her choices (see Section 2.3 and Section 2.5).

In this thesis, the relationship between the woman as agent, and the context consisting of structures and other agents can be summarised in the three decision rules notions given in Box 2.1.

2.4 FIVE CONCEPTUAL LEVELS: THE MICRO-MACRO DEBATE

To understand what influences agents' decisions, it is necessary to conceptualise how the context is shaped. I distinguish five contextual levels where agents and/or structures and important explanatory factors influencing women's employment can be found. These levels are the individual, household, community, country and global levels – the five concentric circles in Figure 2.2.[11] In line with my framework, this graphical depiction emphasises the growing geographical distance as one moves from the individual to the global level. This is important in light of the idea of proximity, as will be discussed below, for instance with regard to the inclusion of the sub-national community level.

THE INDIVIDUAL WOMAN

As discussed above, the individual woman is the primary agent who decides to enter the labour market and to accept a job. The woman's individual characteristics are important in this decision-making process because she will consider her chances on the labour market, because she holds certain ideas about what her role in society is, and because she might feel the need for self-development or for an income to provide for food and other basic needs.

THE HOUSEHOLD

The first and closest important contextual level for a woman is her household. Daily life takes place in this context and this is where generally her decisions are discussed with the people closest to the woman: partners, parents, her nearest and dearest. This is also the setting in which the reproductive and productive roles of women most often collide: should women primarily run the household, should they go out and work, or can and should the two roles be somehow combined? Given the gendered division of labour and the way the household is often treated as the smallest economic unit in society (see also Kabeer, 1992; Razavi & Miller, 1995), characteristics of the household (e.g. family structures, ideas of other household members, and its economic situation) are expected to shape the incentives and limitations to seek employment.

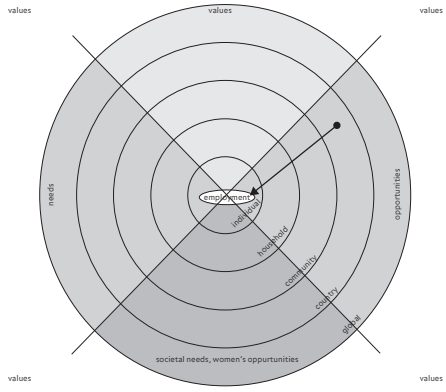
THE COMMUNITY

A woman's opportunities are also influenced by the norms of society at large and the actual job opportunities in her living environment. This means that the community level – a sub-national level that is smaller and closer to the woman than the country level – is very important. As soon as people cross their doorstep, they face this context. Norms differ throughout a country, and a norm upheld at the other end of a country is expected to be less important than the one dominant in one's own area. This proximity is also important for the opportunities women have, since travelling is costly (in terms of time, money and gendered mobility norms [cf. Assaad & Arntz, 2005]). It is thus crucial that the necessary facilities and opportunities are located nearby.

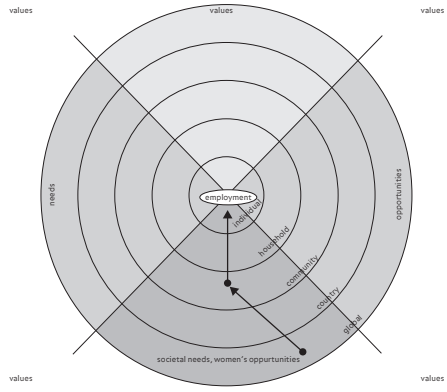
THE COUNTRY

In this framework, countries are mainly considered to be political units. Countries can also be seen as cultural units, but – certainly in Muslim countries – country borders often do not overlap with ethnic, religious or cultural groups. These cleavages are more prominently found at the sub-national level or, if one wants to think in terms of an Umma or an Arab culture, at the global level (cf. Owen, 2004: 1–12). More important, however, is that the state has the capability of policymaking, which demands that the country level is included as a contextual level in this framework. Political structures and gender and/or economic policies differ widely

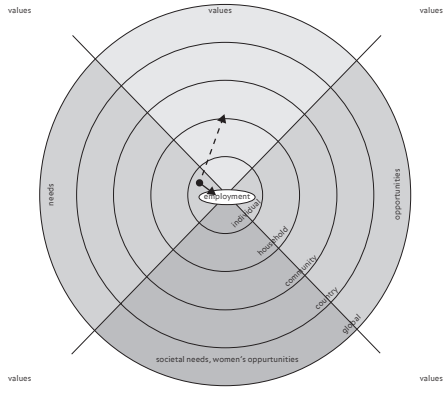
Figure 2.3 How factors at different levels can influence women's employment



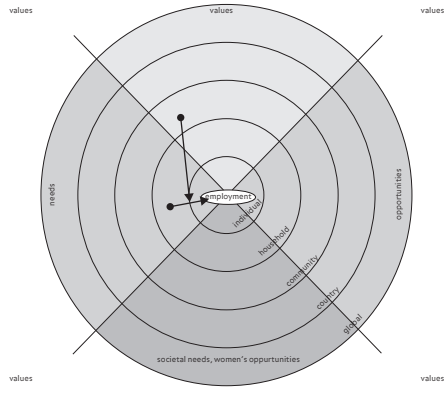
A Immediate influence



B Top-down influence



C Upward relation



D Embedded relatedness

Box 2.2

- The context influencing women (the individual level) and their employment has four major levels – the household, the community, the country and the global level – and factors at each of these levels shape women's employment.
- Contextual characteristics at the level closest to the individual woman have the strongest influence on the chance women are employed.

12 In other parts of the world, the international context can be separated in two levels: the global level and the regional level, which falls in-between the country and global level. The best example with respect to women's employment is the EU. At that level, many policies that affect women's employment opportunities are made.

13 I would argue that so far no such intermediate level of importance exists for the Muslim countries studies here. Assaad & Artnz (2005) is a notable exception.

across countries and can have a substantial impact on the position of women. Depending on the country, policies can also be made or influenced at the local level, but the primacy of (gender and economic) state policies is often situated at the national level.

THE GLOBE

The last important contextual level shaping women's employment in Muslim countries is the international one.[12] In a world in which geographical distances have become easier to bridge, both international and transnational transactions cannot be ignored. This draws attention to economic, cultural, and political relations and forces such as international trade and investments, monetary world politics, and (neo)colonisation. Processes found at the global level can directly and indirectly influence women's employment through these processes.

Existing studies mostly focus on two of these levels: the macro level, which often equals the country level,[13] and the micro level, which includes but often does not distinguish between individual and household levels. Even studies that claim to be more comprehensive are limited and focus on only (one of) these two levels. For instance, Hijab (1988: 74; 2001) explicitly speaks of the 'popular' and 'state' levels in her work on Arab women and work, but ignores the other levels (household, community and globe). Moghadam (e.g. 1998, 2003) focuses heavily on developments at the country level, and only sometimes includes micro-level supply side factors (Moghadam, 1996), and the GAD approach pays attention to political systems and national structures in particular (Rathgeber, 1990). While Moghadam and GAD draw some attention to the global level as well, mentioning the importance of the (developing) countries' position in the international economic system, the lower levels are disregarded. Of course, each of these approaches was a reaction to time-specific dominant perspectives and added important spheres that had been absent before that time, such as the international dimension or the importance of the state. However, none of the previous approaches were truly comprehensive: the focus was placed on the level that was 'new', levels were conflated and/or levels were left out. Consequently, each of these approaches only covers a selection of the potentially relevant factors. This is clearly illustrated by the neglect of the community or sub-national level, and consequently of the importance of proximity.

The theoretical claims I have put forward in this section are summarised in Box 2.2.

2.5 CONNECTING THE LEVELS: THE COMPLEXITY DEBATE

To theorise the relationship between the individual woman and her context, and to distinguish the important levels of analysis is only the first step. The second, taken in this section, is conceptualising how these levels are connected. I argue that there are four different ways factors at different levels can be related to women's employment or to each other (see Figure 2.3), and each of these is important to understand women's employment.

As visualised in Figure 2.2 and Figure 2.3, the woman is embedded in the household, the household in the community, the community is embedded in the country, and the country in the international system. At each of these levels, explanatory factors can be placed from which an arrow can be drawn to the woman's employment status. These arrows represent the causal relationship between explanatory factor and outcome. The lower-level relationships are then also embedded in the higher-level contexts. From this multilevel approach, I can then deduce the four ways they relate to each other: the direct top-down influence, the indirect top-down influence, multilevel spuriousness, and the embedding effect (see Figure 2.3).

Firstly, a factor at a higher contextual level is relevant if it influences women's employment at the individual level. This effect can take place without interference of variables found at the levels in between the influencing context factor and a woman's employment. For example, national laws that prohibit women working in certain (e.g. heavy manual labour) sectors decrease women's opportunities. This is what I call a direct top-down influence, which is illustrated in Figure 2.3's Panel A.

Secondly, changes at the higher level might affect lower-level characteristics that influence employment not directly, but indirectly. For instance, more economic transactions at the global

Box 2.3

- Context-level factor CFA influences women's employment directly – immediate influence.
- Context-level factor CFA, found at a context level LA, influences women's employment indirectly by influencing context-level factor CFB, found at a context level lower then LA, and CFB influences (context-level factor CFX, found at context level LX, which is located closer to the individual woman than LB, where CFX directly influences) women's employment – top-down influence.
- The relationship between women's employment and context-level factor CFA, found at level LA, is caused by a factor at a lower level than LA, whereby the lower-level factor influences both women's employment and the context-level factor CFA – upward relatedness.
- Context-level factor CFA, found at a context level LA, influences the effect that another factor, found at a level lower than LA, has on women's employment – embedding effect.

14 Studies focussing on differences on civilisations often compare countries and include other explanations as well. In this sense civilisationist studies and macro-level studies are not excluding groups. Studies that present civilisation-logic are: Clark, 1992; Clark, Ramsbey & Adler, 1991; Fish, 2002; Huntington, 1993, 1996; Inglehart & Norris, 2003a; Lincove, 2005, Norris & Inglehart, 2002, 2004; Yuchtman–Yaar & Alkalay, 2007.

15 E.g. Burkina Faso (Calvès & Schoumaker, 2004), Egypt (Donahoe, 1999), Guinea (Glick & Sahn, 1997; 2005), Jordan (Jansen, 2004; Al–Qudsi, 1998), Kuwait (Al–Qudsi, 1998), Malaysia (Hirschman & Aghajanian, 1980), Mali (Wooten, 2003), Nigeria (Aromolaran, 2004; Togunde, 1999), Oman (Al–Qudsi, 1998) the Palestian Territories (Khattab, 2002; Al–Qudsi, 1998), Saudi Arabia (Vidyasagar & Rea, 2004), Turkey (Gündüz–Hoşgör & Smits, 2008), and urban West Africa (Kuepie, Nordman & Roubaud, 2009).

16 E.g. The Middle East (Azzam, Abu Nasr & Lorfing, 1985; Hijab, 1988; Moghadam, 1990, 1993, 1996, 2004; Olmsted, 2003; Pfeiffer & Posusney, 2003; Tzannatos & Kaur, 2003); Algeria (Moghadam, 1998); Bahrain (Metcalfe, 2007), Egypt (Assaad, 2003; Moghadam, 1998; Nassar, 2003), Indonesia (Bahramitash, 2002), Iran (Bahramitash, 2003; Moghadam, 1996, 1998), Jordan (Malt, 2007; Miles, 2002; Moghadam, 1998; WorldBank, 2005), Lebanon (Chamie, 1985), Malaysia (Standing, 1996), Morocco (Cairoli, 2007; Moghadam, 1998), Nigeria (Callaway & Creevey, 1994); Saudi-Arabia (Doumato, 2003), Senegal (Callaway & Creevey, 1994), Sudan (Hale, 2003), Syria (Moghadam, 1998), Tunisia (Moghadam, 1996, 1998; Murphy, 2003), Turkey (Moghadam, 1996, 1998), Yemen (Carapico, 1996; Myntti, 1985), and Central Asia (Moghadam, 1996), or more cross-sectional comparative (Clark, 1992; Clark, Ramsbey & Adler, 1991; Fish, 2002; Spierings, Smits & Verloo, 2009).

level in the form of Foreign Direct Investments (FDI) can increase manufacturing facilities at the sub-national level. This new, additional local industry leads to a higher demand for labour, for female employees especially if it involves labour-intensive manufacturing industries. Consequently, women's employment opportunities rise. This is shown in Figure 2.3's panel B, and I will label this as an indirect top-down influence.

Thirdly, as is the case with one-level relationships, multilevel relationships can be spurious. In particular, macro-level influences might be spurious and not detected due to missing micro-level variables. This has hardly been theorised upon because it is rather unique to multilevel frameworks. When characteristics of units at a lower level are related to characteristics at higher contextual levels, it might seem that the higher-level context factor influences women's employment, but in fact they do not. It are lower-level characteristics that influence women's employment and might also be responsible for the higher-level context factor. In Figure 2.3, this is illustrated by panel C under the description of multilevel spuriousness; the dotted arrow is non-causal. An example might be the effect of living in an urban area and of living in a city. There might be a positive effect of living in a more urbanised region, but this effect might disappear after inclusion of living in a city. In that case it are for instance the job opportunities in the closer proximity of women that count, not in the larger area. In a region, with more women living in cities, the degree of urbanisation is higher and women's employment is higher, but that is not because of the job opportunities outside the city influencing women's employment. The lower level variable – living in a city – causes both employment and the degree of urbanisation.

Fourth, because relationships at lower levels are embedded in higher-level contexts, influences at the lower level are not by definition universal, but they can be context specific: through a so-called embedding effect (see panel D in Figure 2.3). The influence of a household characteristic – e.g. having a partner – on women's employment is for instance placed in the community context and might have a different influence in more traditional or wealthy areas than in less traditional or wealthy areas.

Due to the fragmentation of the current literature in terms of levels, these different forms of interrelatedness are hardly discussed or theorised. Most studies focus either on civilisations,[14] countries,[15] or individuals[16] (see also Pettit & Hook, 2005; Walby, 2009). This approach has led to a disconnect, with several negative theoretical and empirical consequences. Where theory is concerned this means that macro-level mechanisms can be underspecified because little thought is given to the question how macro factors might have indirect top-down influences or whether it is multilevel spuriousness. Similarly little attention is paid to how micro-level influences might differ by their context (cf. Walby, 2009: 71). A schematic overview of the three types of studies (at the civilisation, country and individual level) and their weaknesses and strengths is provided in Appendix 2.1. By bringing together the different levels (as Hijab [1988] did for the country and individual level) and also theorising how they relate, the different effects of influencing factors at the various levels can be better understood.

In sum, my general expectations about the interrelationship between levels can be captured as is done in Box 2.3. Different types of interrelatedness can exist simultaneously; economic development, for instance, can have a direct top-down influence as economic need, an indirect top-down influence through human capital investments, and an embedding effect whereby having children is less restricting.

2.6 NEEDS, OPPORTUNITIES AND VALUES: THE DOMAINS DEBATE

Now that I have distinguished the different levels and discussed the various ways how the factors at the multiple levels are related, the question arises which factors at these levels particularly influence women's employment. To identify these factors, it is necessary to understand the basic mechanisms behind the decisions crucial to women becoming employed. I conceptualise these mechanisms in terms of circumstances that can be present in different degrees and the more they are present for a certain woman, the higher the probability that woman will work. If they are fully present, a woman should have a job according to this logic. These circumstances are what I have called conditions (cf. Hijab, 1988). I argue that for women's employment three (combined) conditions should be distinguished: Needs, Opportunities and Values (NOV).

17 Of course, needs and opportunities also have an influence in changing the values in society, but here I do not mean that values determine needs and opportunities in such a causal way, but that the values in society change the way society is perceived.

In Figure 2.2, these three conditions are depicted by the different parts and shades of the circles and background. As will be elaborated below, these conditions partly overlap: Values can constitute an effect on their own (the light gray top segment of the circle), but they also shape what is considered a Need or an Opportunity (all concentric circles are placed on top of the background light gray of Values; in a sense, Values form a prime coat);[17] both Needs and Opportunities influence women's employment, with Values as an underlying condition (the segments in medium gray at the left and right of the concentric circles); and societal Needs and micro-level Opportunities are different sides of the same coin (the dark grey segment of the circles where all three conditions come together).

2.6.1 THREE CONDITIONS

NEEDS

At the core of this condition is the question: What must be done? 'Needs' refer to the things or actions that are considered necessary in order to reach the goals people or groups of people have set for themselves. These needs can either stimulate employment or prevent women from seeking employment.

At the micro level (individual and household), the two core needs in understanding women's employment are material needs and care needs, both related to the goal of survival and reaching a certain level of well-being. Material needs include money, food and clothing, all of which require some sort of income that most of the time will be acquired through labour. Care needs refer to the reproductive and social aspects of household life: taking care, physically and emotionally, of other household members. Considering the usual time constraints, care needs interfere with other activities, and increasing care needs therefore hinder the entrance to the labour market. Especially in contexts where care roles are heavily gendered and considered to be exclusively feminine, care needs limit women's employment.

At the macro level, the goals of growing prosperity and state or group survival are most relevant in understanding employment-related needs. To reach these goals it can be necessary that more people enter the labour market, or that people (mostly men) join the armed forces and are to be replaced by others (women) in the labour force, for example. At this level, the core need is the need for additional labour, which especially influences women's employment decisions if this societal need is internalised by women; if they consider it their duty to help their country or group, the need for labour will stimulate a woman to enter the labour market.

OPPORTUNITIES

Opportunities are captured in the question: What can be done? Needs might drive women to enter the labour market, but this does not necessarily mean that they will get employed. A woman's employment status ultimately depends on whether her characteristics match the available jobs.

At the societal level, this has to do with the presence of accessible and suitable jobs. In this respect it is important that there are vacancies. Moreover, these jobs need to be open to women. Employers have to be allowed and be prepared to hire women, or customers have to be prepared to buy from a woman. Here, norms about what jobs are considered suitable for women as well as the perceived comparative advantages of hiring women are both important. In addition, the accessibility of jobs depends on the jobs' location, the place where the women live, and women's mobility. The presence of suitable and accessible jobs as an opportunity overlaps with the societal need for female labour (the darkest segment in Figure 2.1): a perceived need for women as employees can result in opportunities for women to find jobs (once they are on the labour market).

At the micro level, women's skills and the household's resources to find and secure a job shape the opportunities of women to become employed. The job requirements need to match the skills of the potential employee. In addition, a woman must have access to the jobs that suit her. If there are jobs in the vicinity and a woman's skills match their requirements, it is necessary that the woman and the job 'find each other'. Opportunities therefore also depend on the resources that women and their households have that can be applied in finding a job.

VALUES

The values condition is reflected by the question: What should be done? Value patterns, for instance on gendered household roles, are first translated to norms that influence which needs are considered most important for women, which jobs are suitable to women, and which can be institutionalised in policies creating opportunities for women. It is in this sense that values underlie needs and opportunities.

Secondly, not every woman who is in need of an income, has no care duties, and can easily find a job will actually seek employment. She can always decide not to. Certain values she or her social environment holds or that are dominant in society can prevent her from seeking or finding employment because it would be considered inappropriate and undesirable. The opposite also holds true: values can stimulate her to find a job. At the individual level, women can have internalised such values and act accordingly. However, a woman might also consciously anticipate how others will judge her behaviour, what values other people hold and which societal norms are dominant. The costs of going against family or societal norms may outweigh the perceived personal benefits of employment. These direct influences of values are reflected by the light gray top segment in Figure 2.2.

On the issue of women's employment in Muslim countries, at least two broad sets of values should be considered. The first concerns ideas about the general role of women in the public sphere: are women and men supposed to live separate from each other or not? A norm of seclusion restricts the employment of women to working environments in which only women are active. The second includes more specific values about the existence and extent of complementary roles of women and men: are women primarily seen as care providers? If so, they will be less likely considered as potential employees, but 'feminine jobs' may still be acceptable and open to them.

These two types of values do not automatically influence women's employment, as they are only the normative content. Only if this normative content is embodied can it influence women's behaviour (see also Badran, 2001; Spierings, 2007). Such an embodiment can be found in the above-mentioned societal norms, institutionalised in policies and politics and in internalisations.

2.6.2 NOV – A CONDITIONS APPROACH

The choice to make conditions the underlying frame for identifying factors that influence women's employment contradicts the common practice in the literature. Most studies start by identifying dimensions, spheres or domains such as economics, politics or culture. For instance, the GAD perspective and Moghadam's framework have drawn attention to (groups of) factors that are often neglected in mainstream theories. Both stress the importance of political structures and policies, class differences and gender systems (Moghadam, 1996, 1998; 2003; Rathgeber, 1990). Doing so, they complemented existing ideas on the influence of religion (Islam) and economic characteristics. Walby's more general theory also emphasises the importance of different groups of factors. In Walby's terms, employment is part of the economic domain (including domestic labour) that coevolves with the other domains, such as the polity and civil society (a label Walby prefers over culture), and different inequalities (class, gender, and so on) shape social relations in each of these domains (2009: Chapter 2). GAD, Moghadam, and Walby justifiably argue for a comprehensive approach that takes into account the cultural, political, and economic domains, and that considers both the productive and reproductive roles of women. However, adding dimensions or domains to a theoretical framework is insufficient for creating a truly holistic framework.

To be able to identify all the important factors influencing women's employment it is necessary to understand what general causal mechanisms are at work. From these mechanisms the more specific factors can then be derived, but the mechanisms are not domain specific and thus the collection of influencing factors cannot be fully understood when the focus remains on domains. Frameworks that start their reasoning in terms of domains do not go to the core of the phenomenon, which are the theoretical mechanisms, even thought they might pinpoint a large part of all important factors. In sum, starting with domains might lead to possibly neglecting important influences. This is not to say that the different domains are not important; as can be

Box 2.4

- A woman's decision to enter the labour market and whether she will be employed is fully based on a combination of the needs, opportunities and values of the woman and her surroundings.

Box 2.5

I To the extent that the material needs of a woman and her household increase, the greater the probability that a woman is gainfully non-agriculturally employed.

II To the extent that the care needs of a woman and her household increase, the smaller the probability that a woman is gainfully non-agriculturally employed.

III To the extent that the labour demand at the societal level increases, the greater the probability that a woman is gainfully non-agriculturally employed.

IV To the extent that a woman's skills increase, the greater her probability to be gainfully non-agriculturally employed.

V To the extent that the resources at the disposal of a woman increase, the greater the probability that she is gainfully non-agriculturally employed.

VI To the extent that the number of suitable jobs in the vicinity of a woman's residence increases, the greater the probability that the woman is gainfully non-agriculturally employed.

VII To the extent that the strength of gender seclusion and segregation values increase, the smaller the probability that a woman is gainfully non-agriculturally employed.

derived from the conditions discussed above, the different domains mentioned by Moghadam, Walby and the GAD approach are included in my framework, but this framework in itself is quite different from their approaches.

My approach is inspired by Hijab's (1988, 2001). She argues that Arab women's employment is shaped by many factors, such as education, wealth, cultural and social views, legislation and labour market structures. These factors are conceptualised as aspects of three conditions – needs, opportunities, and abilities – "which must be met before women (or men) can be fully integrated into the wage labor force" (1988, p. 73). Besides widening the scope of the framework from Arab women to women in Muslim countries and adding (the interrelatedness of) levels, my conceptualisation of conditions is also substantially different.

Hijab refers to needs as requirements or manpower at what she calls the state level and as income at the popular (micro; in my terms household and individual) level. She sees opportunities as encompassing the proper environment in terms of legislation at the state level as well as the cultural and social obstacles at the popular level. Abilities in her view include training facilities and skills. This classification has several weaknesses. Firstly, her concept of needs includes only economic needs and does not pay attention to broader needs such as care. Secondly, the difference between abilities and opportunities is unclear and both seem to tap into the fit between the labour market situation and women's characteristics. Thirdly, Hijab includes values and societal norms as part of the concept of opportunities. She thereby conflates different influences and at the same time seems to neglect culture as a force on its own, a system of descriptive and injunctive norms (see Smith & Louis, 2009). Fourthly, she formulates the conditions as if they cannot have a combined effect, that they are mutually exclusive, while I have argued that only values might have an effect by themselves.

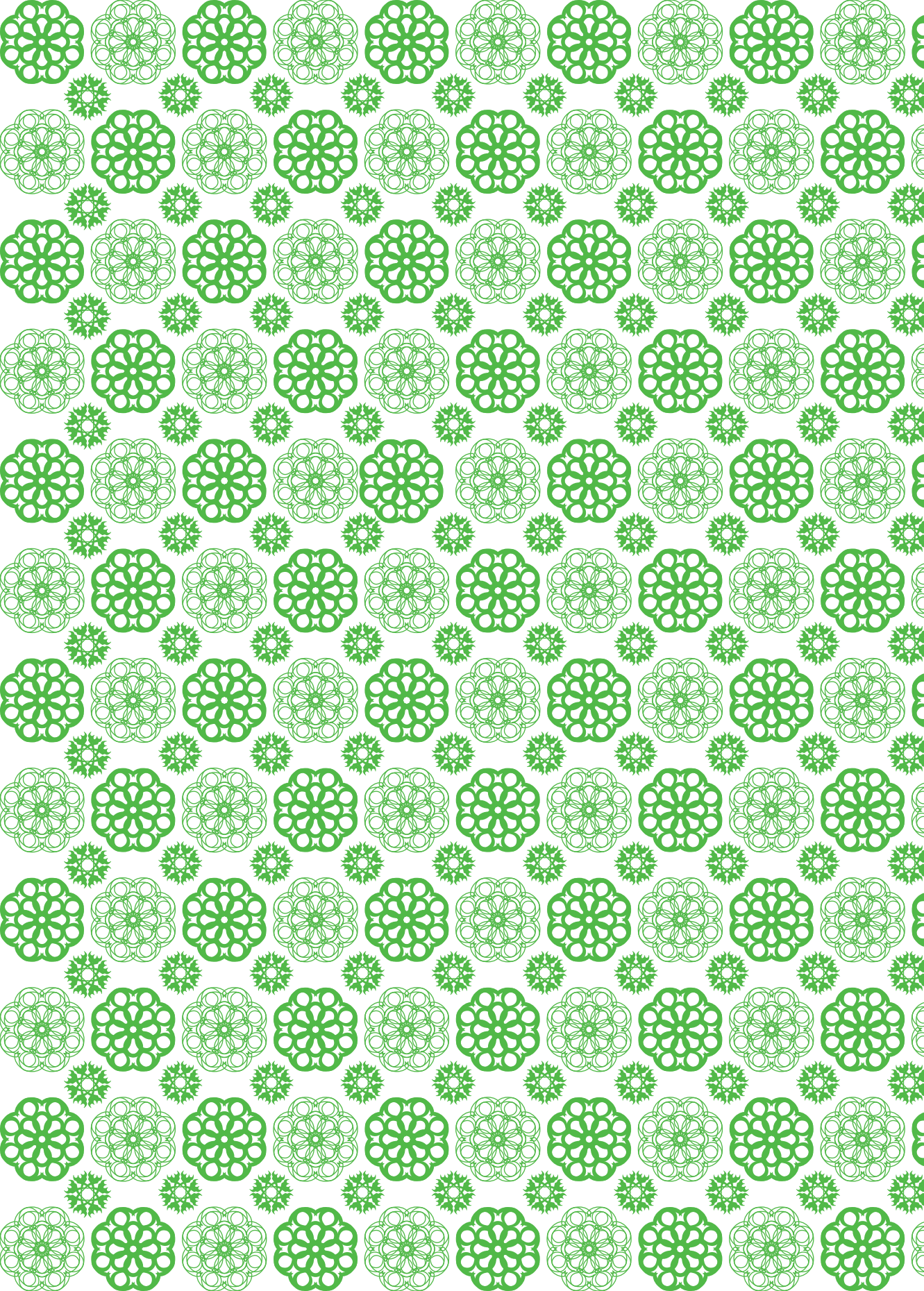
In this section, I have argued that each and every causal mechanism is based on (a mixture of) three conditions, which is summarised in Box 2.4. Subsequently – and within the framework of the other theoretical starting points discussed in this chapter – these three conditions have been translated to seven general hypotheses as given in Box 2.5. In the next chapter, these general hypotheses are further specified to factors influencing the likelihood that a woman is to be employed.

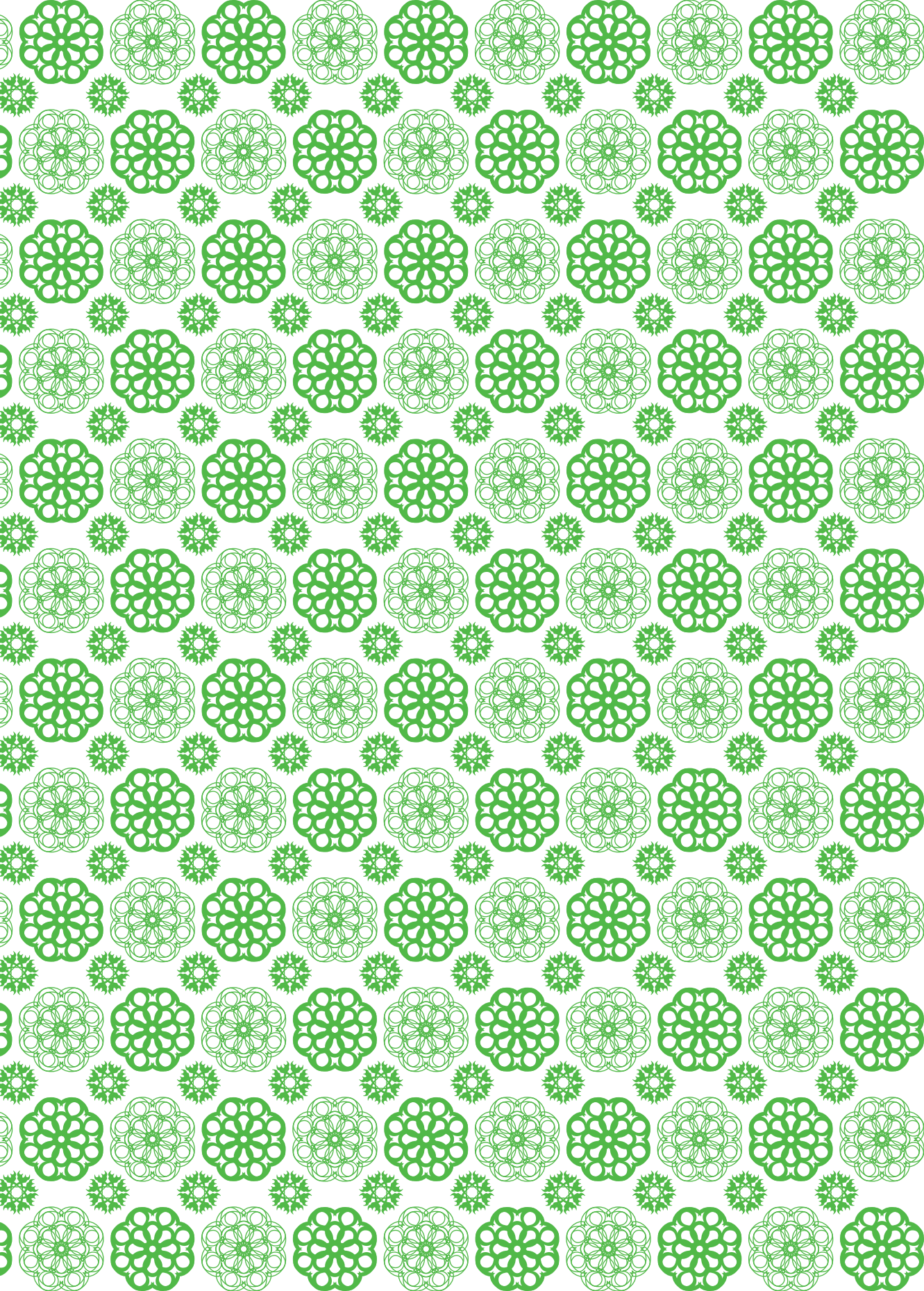
2.7 CONCLUSIONS: A HOLISTIC VIEW OF WOMEN'S EMPLOYMENT DECISIONS AND POSITIONS

In this chapter, I have presented the basic premises on which my theoretical expectations are based and that will be used to formulate specific hypotheses or expectations in the next chapter and the thematic chapters (respectively Chapters 3 and 7, 8, 9 & 10). I have argued that the individual woman is the primary agent who is placed in a four-level context (household, community, country, globe), with different structures and other agents at each of these levels shaping her decision to enter the labour market and influencing whether she will succeed in finding a job. The probability that the woman in the end succeeds in becoming employed depends on the needs, opportunities, and values of herself and her environment. These conditions underlie factors that influence women's employment at the different levels, whereby contextual factors are expected to manifest a stronger influence the closer they are to the individual woman. Moreover, some of these (contextual) factors will have direct effects, some will influence other explanatory factors at a lower level and thus influence women's employment indirectly, some will shape the strength of relationships at the lower level, and some contextual effects might turn out to be caused by lower-level differences.

This framework combines insights from different approaches, such as the Gender & Development (GAD) approach (Rathgeber, 1990), Moghadam's work on women's economic position in the Middle East (Moghadam, 1998; 2003), Hijab's approach to work and Arab women (1988, 2001), and Walby's complexity theory for the social sciences (Walby, 2009). At the same time my framework transcends these approaches by explicitly theorising the multiplicity of the important levels and their interconnections, and by clarifying the relationship between structure and agent as well as the underlying causal factors. Applying this framework, I will formulate specific expectations in the following chapters that encompass the existing literature, point

towards unexplored influences on women's employment, take position in existing debates, disentangle existing conflated explanations and contextualise explanations of women's employment.





18 This pattern is not exclusive to Muslim countries; on the contrary, this division of labour is found in many if not most societies.

Chapter 3

Formulating expectations

Micro- and macro-level determinants of women's employment

3.1 GENERATING A NEW UNDERSTANDING AND FORMULATING HYPOTHESES

In the previous chapter, I have discussed what I think are the crucial aspects that determine women's employment, in the process formulating seven general hypotheses. In this chapter, I will derive more specific hypotheses about what factors influence women's employment using the previously established framework. These hypotheses are more concrete specifications of the seven general hypotheses regarding needs, opportunities and values as formulated in Chapter 2. In other words, the general concepts that can be applied to women's employment in each context are here reformulated into factors that I expect to influence women's employment in Muslim countries. This chapter will be organised in five sections, the first four corresponding with the segments indicating the four combinations of conditions found in Figure 2.1 and Figure 3.1. Section 3.2 focuses on care and economic needs; Section 3.3 on societal economic needs that translate to opportunities for individual women; Section 3.4 on opportunities in terms of matching labour supply and demand; and Section 3.5 on the direct influence of values. Section 3.6 pays special attention to the role of the state and government, relating it to both the needs/value combination of conditions and the opportunities/values combination.

In this second theoretical chapter, the theoretical expectations formulated in the fragmented literature on women's employment in Muslim countries are brought together and reinterpreted in light of the framework presented in the previous chapter. While the main focus in this chapter is on re-understanding the possible effects of familiar factors, I will at the end of each section also briefly address ways the framework sheds light on new issues or running debates on the (group of) factor(s) discussed in that section. There, I will also refer to the thematic Chapters 7 through 10 in which the general framework will be applied to how the employment opportunities created by education differ by context (Chapter 7), how household configurations shape women's perceived economic and care burden and thus employment because of a certain patriarchal value system (Chapter 8), how religion might influence women's employment once it is translated to (institutionalised) norms (Chapter 9), and how global-level factors influence women's employment and effects change over the years (Chapter 10). On each of these issues specific expectations will be formulated in those chapters.

3.2 COMPETING NEEDS: INCOME AND CARE

In this section the two general hypotheses (see Chapter 2 and Box 3.1) on micro-level needs will be translated into more specific ones.

NOV-FRAMEWORK EXPECTATIONS (1)

To understand how material and care needs influence women's employment, the theoretical framework directs our attention to the household level. The dominant value pattern in Muslim countries with respect to the gendered division of labour dictates that men are considered the prime income providers and women the caregivers (e.g., Amin & Al-Bassusi, 2004; Fergany et.al., 2006).[18] The consequence is that the collective input of the household members in terms of care and income determines whether there is a need for women to seek employment or stay home to provide care (Hoodfar, 1997).

Only if the income of the male household members is insufficient are women expected to seek employment. In other words, the economic need for women to enter the labour market

Box 3.1

I To the extent that the material needs of a woman and her household increase, the greater the probability that a woman is gainfully non-agriculturally employed.

II To the extent that the care needs of a woman and her household increase, the smaller the probability that a woman is gainfully non-agriculturally employed.

Box 3.2

3.1 If a male breadwinner is present, the probability that a woman is gainfully non-agriculturally employed is smaller than if no male breadwinner is present.

3.2 To the extent that the number of (young) children of a woman in the household increases, the smaller the probability that she is gainfully non-agriculturally employed.

increases when the family income or wealth decreases, as this constitutes an incentive for a woman to enter the labour market to earn an extra income (see also Glick & Sahn, 1997; Gündüz-Hoşgör & Smits, 2008; Hirschman & Aghajanian, 1980). While men are primarily responsible for the household income, women are primarily responsible for the household management. Since time is limited in quantity and roles are rather strict, more care consumers and thus more care tasks for women might prevent them from entering the labour market. The main difference between households in this respect is the number of present (young) children (cf. Al-Qudsi, 1998; Donahoe, 1999; Glick & Sahn, 2005; Gündüz-Hoşgör & Smits, 2008; Khattab, 2002; Maume, 2006; Moghadam, 2004; Waite, 1980). More women alleviate the care burden and can thus be expected to increases women's employment likelihood, while the presence of more children increases the care burden and thus decreases women's employment likelihood according to this reasoning. These considerations lead to the more specific hypotheses in Box 3.2.

REFLECTING ON THE EXISTING LITERATURE

While the existing literature almost exclusively focuses on children when discussing care and family structures, other foci may also be deduced from the framework used in this study. For instance, by drawing attention to the male-breadwinner-female-caregiver norm and care needs at the household level, it becomes clear that the extent to which care needs limit women in entering the labour market not only depends on the number of care consumers but also the number of people that can provide care: the household's number of adult women. When more female adults are present in a household, the relative care burden of each individual woman will be less, increasing her possibilities for entering the labour market (see also Assaad & Arntz, 2005; Pettit & Hook, 2005). This and other expectations with regard to patriarchal values and household configurations, needs and opportunities will be formulated and tested in Chapter 8.

3.3 LABOUR DEMAND: CREATING OPPORTUNITIES

The societal need for labour, which can spur women to enter the labour market, overlaps with the general concept of opportunities; in other words, the demand for labour might create opportunities for women. In this section, I will further specify this general hypothesis (Box 3.3).

NOV-FRAMEWORK EXPECTATIONS (2)

In the case of gainful non-agricultural employment, a society's demand for female labour is shaped by a combination of, on the one hand, the generating of non-agricultural jobs (which leads to a societal need or demand) and, on the other hand, opportunities for individuals due to newly created jobs. The demand of non-agricultural labour is mainly tied up with processes of modernisation and industrialisation. In those processes, economies shift from an agricultural base to an industrial one, with the service sector developing later on (cf. Bahramitash, 2002, 2003; Kerr, Harbison, Dunlop & Myers, 1960; Moghadam, 1998, 2003; Standing, 1996; WorldBank, 2005). However, not all newly created jobs might be beneficial to women's employment. Because of the labour division in societies where women are considered secondary workers – as is believed to be the case for Muslim countries (see Jansen, 2004; Moghadam, 2004; Nassar, 2003; Olmsted, 2003) – there is only a need for female labour when the male labour supply is depleted; only then do women get the opportunity to find a job. Simultaneously, women might in some cases be preferred over men. If it is true that employers often hold the view that women are more docile, less unionised, and equipped with 'nimble fingers' (see Clark, 1992; Cairoli, 2007; Moghadam, 2003; Pfeifer & Posusney, 2003; Standing, 1996), it can be expected that the demand for female labour is particularly strong when light manufacturing – such as sewing or the assemblage of electronic devices – is at the basis of the overall labour demand increase.

With regard to the impact of labour demand, the sub-national or community level seems most important. Given the restricted mobility of women in (many) Muslim countries (see Assaad & Arntz, 2005; Haddad, Brown, Richter & Smith, 1995), it is economic development at the community level that creates a demand for labour, not just the economic development of the country as a whole. National-level labour needs should not be ignored, however, as national

Box 3.3

III To the extent that the labour demand at the societal level increases, the greater the probability that a woman is gainfully non-agriculturally employed.

Box 3.4

3.3 To the extent the economic development of a community/country increases, the greater the probability that a woman is gainfully non-agriculturally employed in that community/country.

3.4 To the extent that the male labour supply in a community is more depleted, the greater the probability that a woman in that community is gainfully non-agriculturally employed.

3.5 To the extent that the relative number of light manufacturing jobs in a community increases, the greater the probability that a woman in that community is gainfully non-agriculturally employed.

3.6 To the extent that the urbanisation of place a woman lives increases, the greater the probability that she is gainfully non-agriculturally employed.

Box 3.5

3.7 To the extent the foreign direct investments in a country increase, the greater the probability that a woman in that country is gainfully non-agriculturally employed.

processes such as employment policies and within country migration are certainly influential. A focus on proximity not only draws attention to the level at which these effects manifest themselves, but also to women's direct environment. Since non-agricultural labour is mainly found in urban areas, the demand for labour will be stronger in urban environments. This type of location will improve women's opportunities, especially when they are strongly restricted in their mobility (i.e. travelling is only allowed in the presence of a mahram – a male relative), and it is therefore the degree of urbanisation in women's direct environment that counts the most (cf. Assaad & Arntz, 2005; Donahoe, 1999; Glick & Sahn, 1997; Gündüz-Hoşgör & Smits, 2008; Hirschman & Aghajanian, 1980). Based on this discussion four more specific hypotheses are formulated and given in Box 3.4.

REFLECTING ON THE EXISTING LITERATURE

The influence of economic development as described above is derived from the framework discussed in the previous chapter. In the existing literature, economic development is discussed in a much broader sense; lower fertility rates, increased educational levels, and changing value patterns are all part of one process – often labelled "modernisation" – that is often said to lead to women's entry into the labour market (cf. Inglehart, 1997; Kerr, Harbison, Dunlop & Myers, 1960; Moghadam, 2003; Olmsted, 2003). In line with suggestions by others, I believe it is important to explicitly formulate that economic development is an important phenomenon linked to women's employment through different causal mechanisms, not one causal process. Using the idea of multiple conditions and levels helps to understand better which aspects influence women's employment and how the overall effect is accomplished. In my framework, at least five consequences of economic development from the literature can be linked to women's employment: (A) – as described above – the demand for labour creates opportunities for women; (B) the development of a welfare state indirectly influences women's employment through increased opportunities since women become better educated; (C) economic welfare leads indirectly to lower care needs because of lower fertility rates; (D) economic security leads to changing values towards self-development and equality; and (E) more wealthier households means that fewer households need additional income to the male contribution to the household income and there is less need for women to find employment. In other words, economic development can be expected to have an direct top-down influence (A) and a fourfold indirect top-down influence (B, C, D, E) that includes an indirect negative effect (E). Single-level studies at the macro-level conflate all these different mechanisms.

The framework's multiple levels also help better to understand how labour demand might be related to international processes. This link with the global level is particularly present when discussing the creation of jobs. Often international companies are the drivers of investments in manufacturing facilities in low-wage countries, and creating light manufacturing industries increases the demand for female labour. Foreign direct investments (FDI) at the global level might therefore create a demand for female labour at the community level (an indirect top-down influence), which increases women's employment opportunities (see also Chapter 10) (Box 3.5).

3.4 MATCHING DEMAND AND SUPPLY: SUITABLE AND ACCESSIBLE JOBS

The previous section has discussed how economic demand for labour might create opportunities for women to find a job. Zooming further in on the idea of opportunities draws attention to the notion that jobs also have to be suitable and accessible. This means that the wishes and possibilities of the employer and the woman have to match. From that perspective, the three general hypotheses on opportunities (Box 3.6) will be further specified in this section.

NOV-FRAMEWORK EXPECTATIONS (3)

Combining the concept of suitable jobs with the underlying condition of values leads to the expectation that perceptions and norms regarding women's roles and capabilities shape the extent to which an industry or job type is seen as suitable for women. In other words: the local labour market structures are important to women's job opportunities.

Box 3.6

IV To the extent that a woman's skills increase, the greater the probability that she is gainfully non-agriculturally employed.

V To the extent that the resources at the disposal of a woman increase, the greater the probability that she is gainfully non-agriculturally employed.

VI To the extent that the number of suitable jobs in the vicinity of a woman's residence increases, the greater the probability that the woman is gainfully non-agriculturally employed.

Box 3.7

3.8 To the extent that the number of jobs in the service sector in a community increases, the greater the probability that a woman in that community is gainfully non-agriculturally employed.

3.9 To the extent that a country's public sector size increases, the greater the probability that a woman in that country is gainfully non-agriculturally employed.

Firstly, a value pattern that includes strongly gendered roles means that sectors or types of jobs that are feminised – that fit these roles – are most conducive to women's employment opportunities. The service sector especially harbours jobs that are related to feminised tasks, such as teaching, nursing and cleaning (cf. Amin & Al-Bassusi, 2004; Assaad & Arntz, 2005; Bahramitash, 2002; Hijab, 2001; Moghadam, 1998; 2003). Secondly, not only more lenient norms but also the practical provisions in sectors can make it easier for women to accept a job. If discrimination in a sector is lower, child care facilities are better, and there are relatively good social benefits, then important barriers for women to find and accept employment are levelled, although, in the private sector these provisions might be considered too costly, which leads to a comparative disadvantage for women since only they bear children and are the main care providers. For public companies and the government sector more often other motivations play a role and therefore the presence of a larger public sector is expected to be beneficial to women's employment (see Amin & Al-Bassusi, 2004; Assaad, 2003; Assaad & Arntz, 2005; Miles, 2002; Moghadam, 1996, 1998, 2004; Nassar, 2003; Pyle & Ward, 2003; WorldBank, 2005). Consequently, I have formulated the two hypotheses in Box 3.7.

REFLECTING ON THE EXISTING LITERATURE

Each of the effects described above is presented as a direct top-down effect from the community/country level. Connecting these effects to factors found at other levels can also shed further light on some (supposedly) important influences on women's employment. Firstly, a fierce debate has been going on in the literature about the influence of the Structural Adjustment Programmes (SAPs) that are enforced by IMF or the WorldBank in exchange for economic and financial support. Some argue that SAPs foster women's employment, while others insist that they disadvantage women. Disentangling the levels and mechanisms might shed light on this issue, making clear that and how SAPs might have contradictory effects. On the one hand, international economic-political instruments might lead to economic development and increased trade through economic liberalisation, positively influencing women's opportunities (see Harrison, 2005; Jaquette, 1982; Posusney & Doumato, 2003; Serra, Spiegel & Stiglitz, 2008), on the other hand SAPs also entail economic privatisation measures, cuts in government expenditures and shrinkage of the public sector, decreasing women's options and thus negatively influencing women's employment from the top down (Assaad, 2003; Fergany et.al., 2006; Miles, 2002; Nassar, 2003; Yousef, 2004). Chapter 10 pays more attention to this issue.

NOV-FRAMEWORK EXPECTATIONS (4)

So far, the match between the job market and the women on that job market has been discussed from the perspective of the labour market, but the second crucial part of the equation are the women's characteristics: jobs can be present and available, but this does not mean that they are accessible. Women need to find the job and have to be judged to (best) fulfil the job requirements. This process depends on individual and household characteristics such as human capital and resources such as a social network. Firstly, with regard to women's paid employment outside agriculture, most crucial basic skills seem to be obtained through education. Especially higher up in the occupational hierarchy, higher education is expected to be a nearly necessary condition for obtaining the human capital needed for such jobs (see Aromolaran, 2004; Assaad & Arntz, 2005; Boserup, 1970; Calvès & Schoumaker, 2004; Glick & Sahn, 1997, 2005; Gündüz-Hoşgör & Smits, 2008; Hirschman & Aghajanian, 1980; Khattab, 2002; Kuepie, Nordman & Roubaud, 2009; Pettit & Hook, 2005). The more human capital, the more labour market options a woman has, as the number of jobs for which she fulfils the requirements increases.

Secondly, a woman's resources can foster the process of becoming employed, because they are the tools with which one can find a job. Social networks seem to be an important example of these resources or tools: having a larger social network that comprises more connections (wasta – 'who you know') (and thus also more possible employers) makes it easier to find a job. These resources are often not a characteristic of the woman, but of the household. For instance, the literature on women in Muslim countries often focuses on the husband's (or head

Box 3.8

3.10 To the extent a woman has more human capital, the greater the probability that she is gainfully non-agriculturally employed.

3.11 To the extent the household belongs to a social network at a higher socio-economic class, the greater the probability that a woman in that household is gainfully non-agriculturally employed.

Box 3.9

VII To the extent that the strength of gender seclusion and segregation values increase, the smaller the probability that a woman is gainfully non-agriculturally employed.

Box 3.10

3.12 To the extent that the presence of women in the public sphere in a community increases, the greater the probability that a woman in that community is gainfully non-agriculturally employed.

3.13 To the extent that the dominance of traditional care roles in a community increases, the smaller the probability that a woman in that community is gainfully non-agriculturally employed.

3.14 To the extent that other household members hold more traditional values, the smaller the probability that a woman in that household is gainfully non-agriculturally employed.

3.15 To the extent a woman internalised more traditional values, the smaller the probability that she is gainfully non-agriculturally employed.

of the household's) socio-economic status (Donahoe, 1999; Gündüz-Hoşgör & Smits, 2008; Mernissi, 1987; Moghadam, 2003). This all results in two more micro-level hypotheses, given in Box 3.8.

REFLECTING ON THE EXISTING LITERATURE

The importance of human capital is not something that is only dealt with in this framework, and higher education is generally considered and shown to be conducive to women's employment, however, the current literature is less clear about how the human capital obtained through primary education influences women's employment. For instance, Aromalaran (2004) and Kuepie, Nordman & Roubaud (2009) argue from an opportunity cost ('Mincerian') perspective that primary education is not conducive to wage work, because the skills learned there in terms of better household management increase the benefits of staying at home more than that the fictitious cost of not entering the labour market and staying at home (lost wages) rise. From a needs, opportunities and values perspective, such an explicit cost-benefit analysis is not made by definition, and primary education simply increases a woman's opportunities on the labour market because a woman with education has generally speaking more skills – literacy for instance – than a woman without education (regardless of whether this also might increase her usefulness when staying at home). With regard to the effect of education or human capital, the way levels are connected in this study also draws attention to embedded effects. For instance, the effect of human capital can be expected to be weaker in areas where more suitable job opportunities exist: employers will prefer higher-educated women, so that these women will find a job even if there are relatively few jobs. The lower-educated women will then only become employed if there are enough suitable jobs. So, more suitable jobs in the vicinity mean a smaller gap between higher- and lower-educated women and thus a smaller effect of education. How the framework predicts this and other embedded effects is discussed more extensively in Chapter 7.

3.5 THE ADDED VALUE OF WORK: SOCIETAL AND INTERNALISED NORMS

In shaping women's opportunities and needs, value patterns play an important role, as has been shown in the previous sections. As explained in Chapter 2, values can have direct effects as well. In this section on the values at work at the different levels, the hypothesis in Box 3.9 will be further specified.

NOV-FRAMEWORK EXPECTATIONS (5)

To understand the influence of values, we have to distinguish different ideas and the different forms these ideas take (see Chapter 2). With regard to the normalisation of gendered behaviour, two different practices are often thought of in the context of Muslim countries: seclusion and segregation. While these can overlap, I will treat them separately and the extent to which they are present in society as dominant behavioural patterns can be seen as the strength of a (descriptive [Smith & Louis, 2009]) norm because the situation serves as examples of what is considered appropriate. In other words, if a woman lives in a community in which hardly any women are present in the public sphere (i.e. labour market, education, politics), it will be more difficult for that woman to enter the public sphere; not because she does not want to, but because she will have the idea that other people (including employers) do not think she should. Similarly, in a community in which traditional family roles and structures are more dominant, a woman will think others will find it inappropriate is she became employed. Norms 'imposed' by others within the household are also expected to be relevant to women's employment decisions; probably there will be discussions about the decision to look for a job, at least with the partner or household head, and otherwise I assume that a woman will at least weigh what she believes the other household members' opinions to be. This is different from internalised values, because when segregation and seclusion values are internalised the woman herself finds it inappropriate to enter the labour market. Based on this discussion, four additional hypotheses can now be formulated (Box 3.10).

Besides social pressure and internalisation, norms can become influential through institutionalisation in policy and state structures (see Bahramitash, 2002; Doumato, 2003;

Box 3.11

3.16 To the extent the institutionalisation of conservative Islam into the state increases, the smaller the probability that a woman in that country is gainfully non-agriculturally employed.

Box 3.12

3.17 To the extent that traditional gendered family roles are more institutionalised in government policies, the smaller the probability that a woman in that country is gainfully non-agriculturally employed.

3.18 To the extent that the size of the social safety net in a country increases, the smaller the probability that a woman in that country is gainfully non-agriculturally employed.

Murphy, 2003; Spierings, Smits & Verloo, 2009; Walby, 2009). This can lead to policies that shape women's needs and values (as will be discussed in the next section), and it can have a so-called injunctive effect: because certain values are institutionalised, women might perceive that others (such as the state) disapprove of certain behaviour (see Smith & Louis, 2009). Because many traditional values with regard to women's position in society are related to conservative strands of religion, Islam in particular (see Amin & Al-Bassusi, 2004; Donahoe, 1999; Hale, 2003; Jansen, 2004; Moghadam, 2004; Syed, 2008; Wooten, 2003), it can be expected that the institutionalisation of a conservative version of this religion into the state structure and policies such as family law prevents women from being employed, also in an injunctive way (see also Bahramitash, 2002; Doumato, 2003; Murphy, 2003; Spierings, Smits & Verloo, 2009; Walby, 2009) (Box 3.11).

REFLECTING ON THE EXISTING LITERATURE

As discussed in the introduction to this thesis, the influence of Islam is often discussed simplistically and without much specification of the causal mechanism(s) at work (e.g. Clark, Ramsbey & Adler, 1991; Inglehart & Norris, 2003b; Norris & Inglehart, 2004; Ross, 2008; Yuchtman-Yaar & Alkalay, 2007). The literature often refers to some overall Islamic culture that is misogynist or in which women are subordinate to men. My holistic approach may help to understand how religion as a message can be influential, but also how it differs within and among Muslim countries. Furthermore, it shows that religion is only one of the sources from which values spring. Since each set of value message needs a messenger as a means of communication to have that influence, the framework also implies that Islam can have multiple influences because values can manifest themselves in many different ways and at different levels. Further discussion – including empirical tests – can be found in the thematic chapter on religion: Chapter 9.

3.6 THE ROLE OF THE GOVERNMENT: SHAPING OPPORTUNITIES AND NEEDS

As discussed in the previous section, governments can institutionalise values through policies, but governments can also impact women's employment by influencing the factors that shape the opportunities and needs restricting or stimulating women's employment. In this sense, the role of governments might be related to all seven main hypotheses formulated in Chapter 2 and further specified above.

NOV-FRAMEWORK EXPECTATIONS (6)

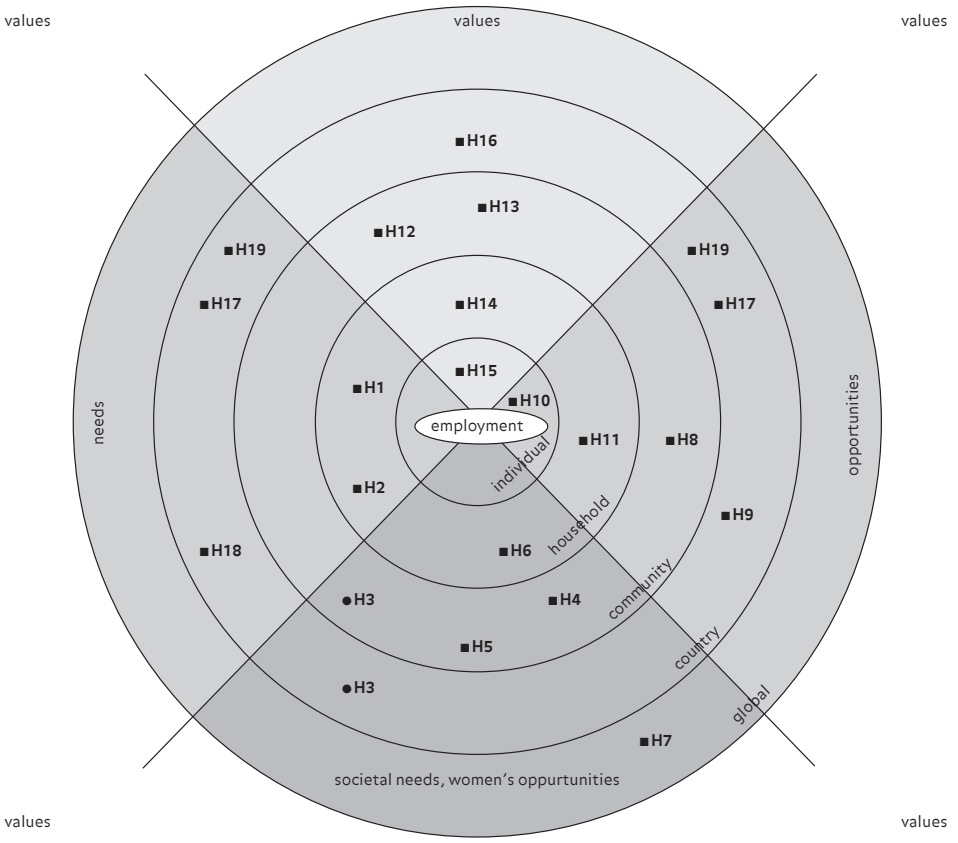
Governments' influence is heavily dependent on the type of policies they support. Governments can implement legal impediments to job opportunities, but they can also reduce the conflict between productive and reproductive needs (e.g. Bahramitash, 2003; Carapico, 1996; Doumato, 2003; Miles, 2002; Moghadam, 2003; Murphy, 2003). With regard to job opportunities, government policies can limit or increase access to jobs. For instance, legal restrictions on travelling or on access to certain sectors and ownership all decrease women's opportunities because it limits the pool of jobs women can choose from and restricts their resources to find employment. These legal restrictions can be religiously motivated – *Shari'a*-based law for example – but they do not have to be. Policies that facilitate childcare and support family planning can help to meet a household's care needs. If women can outsource some care duties, it is easier for them to find employment. Lastly, with regard to economic needs, welfare policies can decrease women's economic needs to enter the labour market, because the household has less need for an additional income and can sustain itself based on the household head's income and the added state provisions. This is summarised in two hypotheses (Box 3.12).

Thinking in terms of top-down influences, indirect effects, and the country level as the main political arena draws attention to the form of government as being a possibly important influence as well. Given the characteristics of a democratic regime, it can be expected that in such a system there are more incentives to implement gender-equal policies (see Huber, Rueschemeyer & Stephens, 1997; Spierings, Smits & Verloo, 2009). Principles such as freedom of organisation, freedom of speech and freedom of protest make it possible for interest groups

Box 3.13

3.19 To the extent that the level of democracy in a country is higher, the greater the probability that a woman in that country is gainfully non-agriculturally employed.

Figure 3.1 A holistic meta-level framework explaining women's employment in Muslim countries, including factor-level inflences



■ **H1**	Male bread winner	-	■ **H8**	Service sector Jobs	+	■ **H15**	Internalised traditional values	-
■ **H2**	Presence children	-	■ **H9**	Public sector size	+			
● **H3**	Economic development	+	■ **H10**	Human capital	+	■ **H16**	State institutionalism conservative Islam	-
■ **H4**	Depletion male labour supply	+	■ **H11**	Socio-economic network	+			
■ **H5**	Light manufacturing	+	■ **H12**	Women in public sphere	+	■ **H17**	Traditional family policies	-
■ **H6**	Urban area	+	■ **H13**	Traditional care roles	-	■ **H18**	Social safety net	-
■ **H7**	Foreign direct investment	+	■ **H14**	Traditional values other members of the household	-	■ **H19**	Democracy	+

to influence policies, and the system as a whole then will give all citizens the possibility to influence policies. Because the citizens are about 50% women, a democratic system and certain freedoms creates possibilities for them. Parts of the female electorate might force or compel the government to change its policies in the direction of gender-equality. Additionally, politicians do often show vote-seeking behaviour, and – again – half of the electorate is female (cf. Fergany et.al., 2003; Posusney & Doumato 2003; Yousef, 2004). In Box 3.13, this is formulated in a hypothesis. However, the developments in Egypt, Morocco and Tunisia also show that people fear democratisation because it might bring Islamists to power (Rizzo, Abdel-Latif & Meyer, 2007; Spierings, 2011).

REFLECTING ON THE EXISTING LITERATURE

Comparative work on the role of the government in shaping women's employment is very scarce and focuses almost exclusively on economic policies, as can be derived from the discussion on SAPs or FDI above. On social and gender equality the research is striking. One reason for this, besides data scarcity, might be the (biased) thought that governments in Muslim countries will not take much action to improve women's situation. This thesis tries to contribute to the literature by theorising different ways government can influence (the factors determining) women's employment, and in each of the empirical chapters I reflect on the state and the role of governments. For instance, in Chapter 9 the local political situation is taken into account, and in Chapter 10 social policies are taken into account to explain the effects of global processes. From these analyses and the framework, it should be possible to envision a path for further development of the study of state and policy effects on women's employment in Muslim countries.

3.7 CONCLUSIONS: FURTHER DEVELOPING A HOLISTIC APPROACH

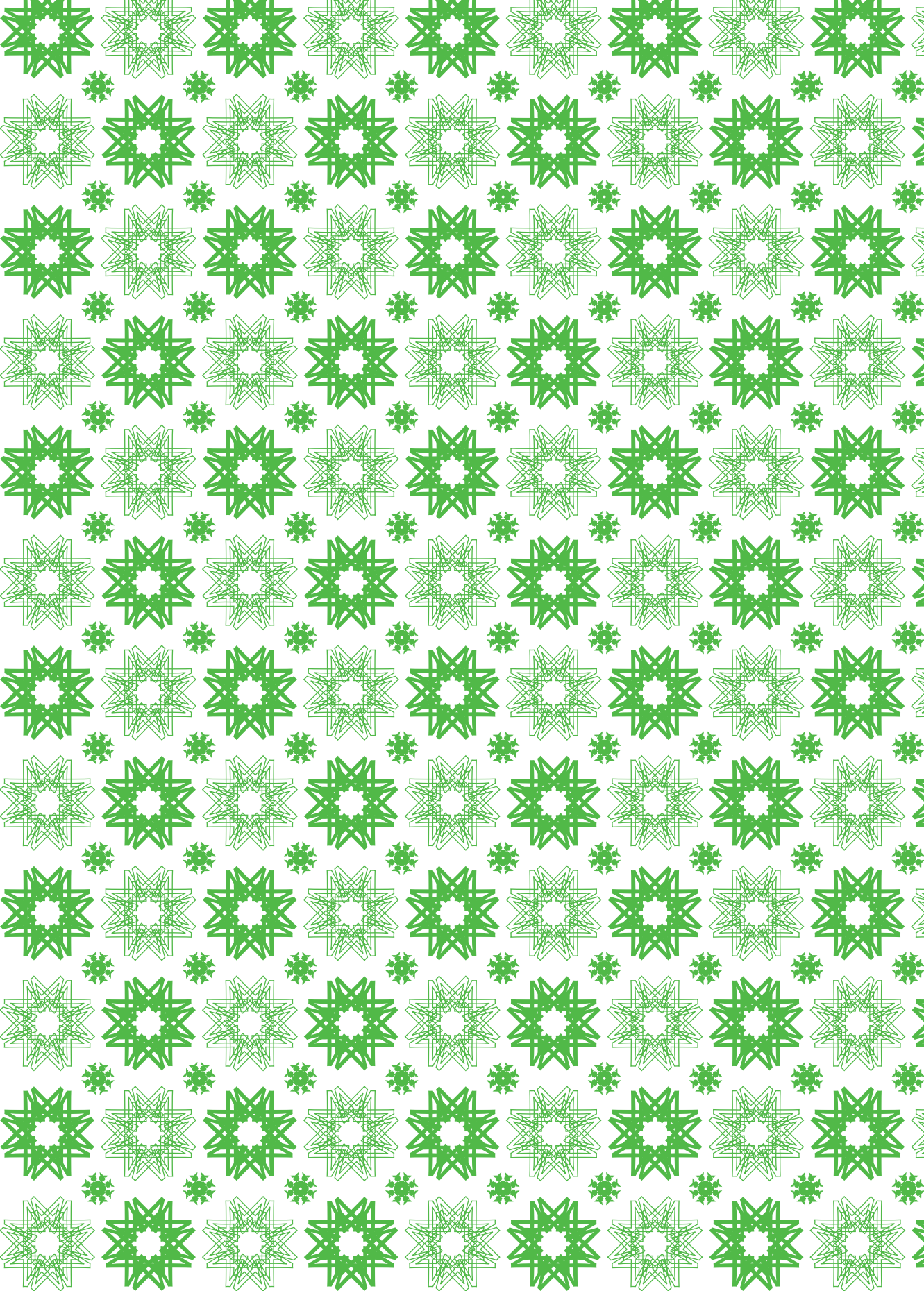
In Chapter 2, I presented the theoretical backbone of this thesis. In this chapter, that holistic framework has been translated into specific hypotheses at the individual, household, community and country level. The hypotheses formulated in this chapter encompass the existing explanatory factors, pinpointed in other works on women's employment as well. It has brought those into connection with each other and has helped to reunderstand those influences in terms of the NOV-conditions. It are thus also the causal mechanisms that count in testing the framework. They shed light on whether the theoretical expectations are correct. Especially, regarding the indirect top-down influences this seems possible in this study.

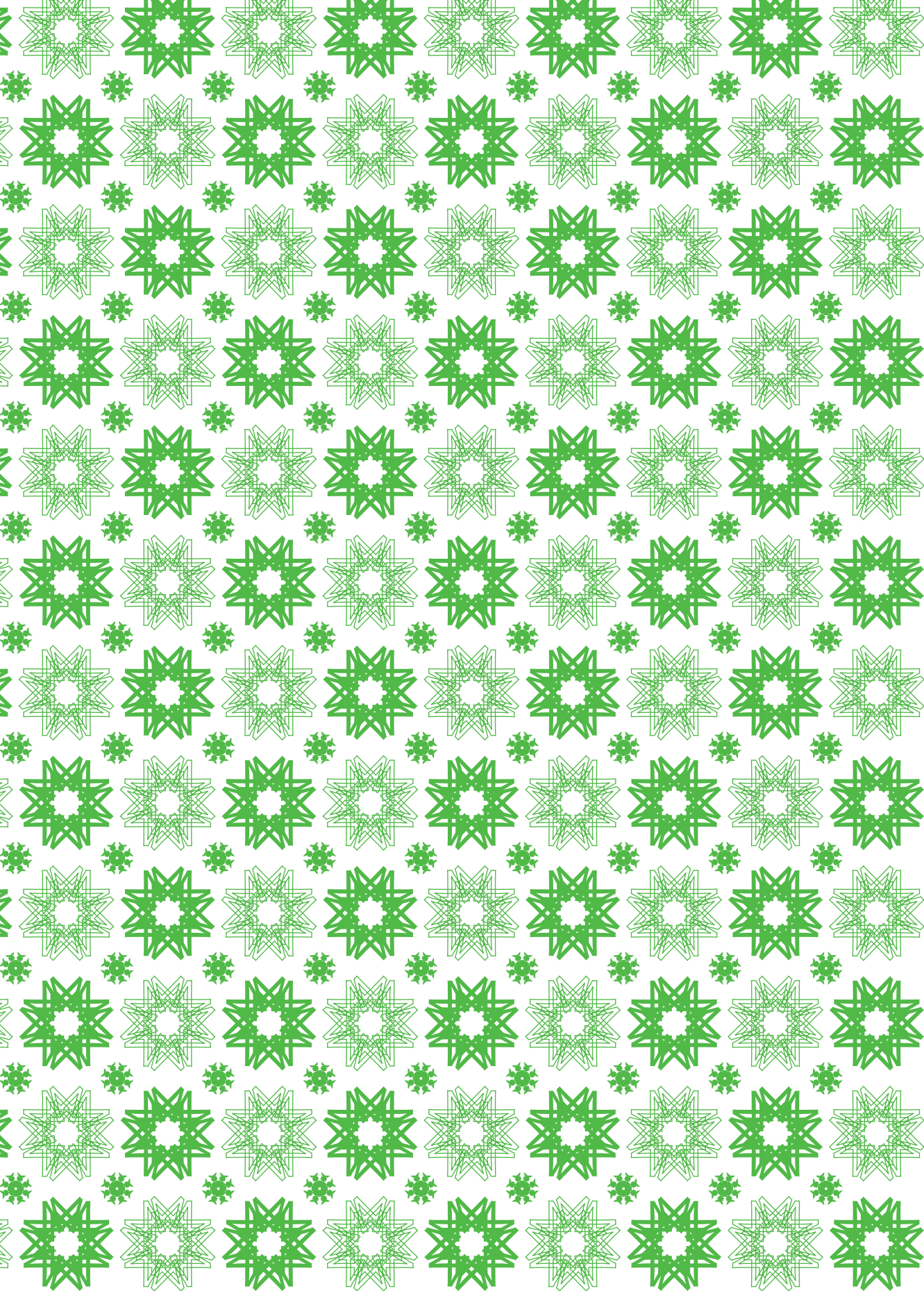
While the focus in this chapter lay on the more well-know factors, other novelties of this framework have been highlighted as well. In the Chapters 7 through 10, other aspects of the framework will be translated to specific hypotheses. One of the most notable contributions by doing so is the framework's capacity to generate new – in the literature hardly or not studied – hypotheses. In Chapter 8, I will formulate and test hypotheses on the presences of different household members. In Chapter 9, many different manifestations of religious ideology at the micro and macro level are related to women's employment. A second notable contribution of the framework is that it tries to understand and theorise how (micro-level) relationships differ by context (the embedding effect – Section 2.5). A brief remark on this in the current chapter is found in Section 3.4. In Chapter 7 this will be discussed for education, in Chapter 8 I theorise how household configurations have different effects in different regions, and in Chapter 10 time is used as the context for different individual and household-level characteristics in Egypt. Throughout this thesis, a third important contribution is the translation of macro-level hypotheses to the district level, as is done for labour market structure in this chapter.

In Figure 3.1, all factors discussed in this chapter are placed in the visualisation of the overall framework presented in Chapter 2. Some sections in this figure are empty, which may give rise to the conclusion that this chapter neglects one or more conditions at one of the levels. Three of such areas can be distinguished from the figure. (A) At the global level, the processes expected to influence women's employment are often underspecified (e.g. 'globalisation') or the literature collapses different effects into one singular effect. Structural Adjustment Programmes, for instance, include different processes such as economic liberalisation and economic privatisation.

These might be relevant to women's employment because of their influence on FDI, economic development, and the size of the public sector, three variables that are included in Figure 3.1. In other words, to formulate specific expectations, global influences often need to be translated to country- or district-level factors, and only specific factors such as these are included in Figure 3.1. In Chapter 10, more attention will be given to the discussion of globalisation, SAPs and thus the global level. (B) At the community level, no economic factors are found in the needs segment because factors that create a demand for female labour, by definition also create an opportunity for women. Thus these factors are found in the lower quadrant. However, it is possible that factors at the community level shape women's care needs. Childcare facilities are a example of this. Since such a hypothesis cannot be tested within the limits of this study, I have not included this factor. Sub-national data on policies and facilities that are comparable across countries is needed for these kinds of tests, and regrettably such data are not available yet. (C) Where needs are concerned, no individual-level factors are included in Figure 3.1 simply because this condition is translated in terms of the collective needs of the household, and the factors can thus be found at that level.

In Chapter 6, I will test the hypotheses formulated above on data for 28 countries, 383 districts, over 225 thousand households and about 300 thousand women. This will show how the translation of the overall framework holds empirically. In Chapters 7 through 10 further translations are made and tested.





Chapter 4

Method & Data
Quantifying diversity

4.1 INTRODUCTION

This study aims to identify the general influences on women's employment in Muslim countries, and how these might differ or change according to their spatial or temporal contexts. To find and test for these relationships, I primarily make use of large data sets and regression-based techniques (multilevel models) that on the one hand enable the identification of general relationships and on the other hand allow me to test the complex dynamics and differences as discussed in the previous and upcoming chapters.

This chapter will, firstly, explicate the two ontological premises underlying my methodological choices (diversity and complexity) (Section 4.2). Then, I will discuss the selection of countries and of the women in these countries (Section 4.3), the methods and techniques I used (logistic multilevel models) (Section 4.4), and the data that underlie all empirical analyses (Section 4.5). In Section 4.6, I will elaborate on the demarcating and measuring of the dependent variable, women's gainful non-agricultural employment, and Section 4.7 discusses the operationalisation of the explanatory factors. The subsequent thematic chapters will provide more detailed and specific information about the methods, models and data specific to the topics treated in those chapters. Section 4.8 closes this chapter with a short summary.

4.2 BASIC PRINCIPLES

Before turning to the case selection, the nature of the data, and the operationalisation of the theoretical factors, I think it is useful to emphasise two basic ontological premises, which were implicitly, or sometimes explicitly, present in the theoretical chapter. They have profoundly influenced my methodological choices, and might be summarised best by the words 'diversity' and 'complexity'.

4.2.1 DIVERSITY

In the 1970s and 80s, feminist scholars heavily criticised the androcentric nature of generalisation in many studies, especially statistical ones (e.g. Bernard, 1975; Harding, 1986; Jayaratna, 1983; Millman & Moss Kanter, 1975/1987; Oakley & Oakley, 1979). These feminists found that those studies either overemphasised the differences between men and women over the differences between people of one sex, or that they generalised results based on the study of males to apply to non-males as well (Millman & Moss Kanter, 1987: 33–5). Similar critiques are found later with regard to differences between black and white women (e.g. Hancock, 2007; Wekker & Lutz, 2001). Currently it seems that history is repeating itself, with Muslim people and countries being the subject of overgeneralisation (see also Davis & Robinson, 2006). The issue of diversity is at the core of feminist critiques on mainstream methodologies, including statistics. Here, I will discuss how I think statistics and diversity can be reconciled, once neither generalisation nor diversity is treated dogmatically, and how this is reflected in my research.

Following their own critiques on quantitative research, many feminist scholars have reacted by looking for new and different methods, which were thought to be less androcentric, such as ethnography, focus groups, and case studies (see Burnham, Lutz, Grant & Layton-Henry, 2008; Harding, 1997; Reinharz, 1992). In this line, new epistemological positions such as standpoint feminism and feminist postmodernism came into existence that (to a large extent) rejected generalisations (see Harding, 1997; Spierings, 2010; 2012a). Specificity and multiple, fluid identities became more important. As McCall (2005) and Harding (e.g. 1986, 1997) argue,

19 Similarly a researcher might formulate the expectation that there is no substantial difference, while the existing literature suggests otherwise, but no empirical test are performed yet. This kind of research can be valuable too, because it can help to chart the shifting locus of identity politics. Still, it should of course be argued why a difference is not considered to be substantial.

questioning categorisations or identities, and deconstructing stereotypes are both legitimate scientific endeavours and do contribute to a better understanding of our society; however, researching how power relations are linked to (perceived) identities and studying the general patterns of power in society can be worthwhile as well. That kind of research, if it meets the right conditions, does contribute to 'feminist-proof' knowledge, not withstanding its use of categorisation and generalisation. This is also my point of view.

From a feminist perspective, the core of the problem with statistical research is that it neglects diversity in the search for generalisations. I claim that diversity can be honoured without having to renounce generalisations (see Spierings, 2010, 2012a). However, diversity should not be a dogma, an a priori truth. Similarly, homogeneity should not be assumed either. I argue that we can focus on the degree of diversity, where 'diversity' comprises the relevant differences between people based on their identities. Core to this rather loose definition are the words "relevant", "differences" and "identities". Differences can be empirically measured, but in the end it is the individual researcher (or policy-maker, or -generally speaking- reader) who has to decide whether a difference is considered to be relevant (cf. Warner, 2008), and statistical significance then becomes just one of the applicable criteria (see McCloskey & Ziliak, 1996). The person performing the study and the study's readers each have to make this decision for themselves, taking into account which identities are used to distinguish (groups of) people and which power relations are studied. Whether these are considered relevant might depend on the goal of the research (see Harding, 1997; McCall, 2005), the position or 'standpoint' of the researcher (see Young, 2003), or the (societal) attention for or the (perceived) relevance of a specific inequality (see Phoenix & Pattynama, 2006; Verloo, 2006; Yuval-Davis, 2006). Crucial, however, is that that choice for a focus on certain identities is a conscious decision, taking into consideration what is neglected and why.

Thinking in terms of the degree of diversity – in stead of assumed homogeneity or diversity – is a starting point in performing scientific studies that enables researchers to look for general relationships while recognising diversity. The researcher can first try to define to what extent general conclusions are drawn or diversity is emphasised in the existing research on the topic the researcher is interested in. After critically assessing that literature, the researcher can formulate expectations about the empirical relevance of a distinction or power relation not yet studied in the field.[19] These expectations can then be tested, and the study can in this manner contribute to a better understanding of differences without drawing the conclusion that generalisations are impossible to make. The measuring stick would then be that a study is particularly valuable if it theorises and tests the influence of at least one aspect related to people's identities that is relatively new to the field of study. If this practice were followed, each new study would add to our knowledge on (causal) relationships in the (current) world, as well as on the differences and similarities among people(s).

This point of view has not only resulted in theoretical attention for the gendered structures in society or a focus on differences through religion (Chapter 9), it also informs several methodological choices. As will be discussed below, the focus on general patterns and internal plurality has firstly led to a selection of cases including as many Muslim countries as possible. Secondly, the models used in this thesis are particularly well suited to including many different influences, and they thus test for the existence of empirical differences in the positions of women with different characteristics and identities. Thirdly, in several chapters I will employ techniques that help to differentiate between effects on different groups of women (Chapter 7 on education; Chapter 8 on household configurations; Chapter 10 on time).

4.2.2 COMPLEXITY

As discussed in the introduction, many studies of women's employment focus on one level or explanatory factor. In this thesis I have presented a more holistic approach to this topic. This choice is based on the underlying view that our social world is a collection of complex interrelationships. In one of the latest and most promising ways of grasping complexity, Walby (2007, 2009) understands this world in terms of different systems, including domains (e.g. polity, economy) and sets of social relations (e.g. gender, class) that are each other's environment and

20 It might seem that the position taken in this thesis is in contradiction with Popper's notion that it is the scientists' job to simplify the universe to that what is deemed relevant (for instance in explaining certain phenomena) (Popper, 1982: 44, see also Lieshout, 1993: 24). It is not (in contradiction). However, I do start from the idea that for most phenomena (including women's employment in Muslim countries) there is no single or small group of primary explanatory factors. My theory dictates that there are many factors, but still many things are excluded as being irrelevant. Since I do not argue that 'everything influences everything', this more encompassing theory can be proven to be wrong. But any empirical test of the theory can only be performed if an ontological complexity position is taken in designing a study. To put it simply: one can only empirically find many factors to be related to the phenomenon of interest, if one starts from a perspective in which these factors are included. If one starts from a focus on one factor, one will not find other important factors. Additional factors will then only come into the picture to explain residuals.

This also raises the question about the importance of explanatory factors. Given the assumption that no single factor (as part of a theory) can explain all variation and, consequently, that there are always multiple explanatory factors; it is human judgement that determines which factor is most important. I do not think that this can be done theoretically, a priori, without empirical tests. Theoretically grounded empirical test can resolve how much a factor explains, but is explained variance – not solely meant in quantitative terms – the only valid criterion? For instance, if age or distance to the planet's equator are the strongest explanatory factors and second in row are educational attainment and the amount of vegetation, I would argue that that latter two can be more important. Policy-wise these two are changeable; moving a country more towards the equator seems somewhat more difficult than planting trees. The relevance of a factor is in the eye of the beholder. But before the beholder can make a judgement, one needs to have a good overview of all factors. A complexity perspective on social reality informs theories and empirical studies that can lead to such knowledge.

thus co-evolve. To explain phenomena in this world, Walby also draws our attention to concepts such as emergence, path dependency, non-linearity and critical turning points (2007, 2009: 58–99).

Without going into a detailed discussion here, I would argue that two major basic points can be distilled from Walby's theory that are highly relevant for social science research, particularly for research on women's employment in Muslim countries. Firstly, Walby's different systems ('domains' and 'sets of relations') are linked to each other in such a way that you can hardly study the influence of a certain part of a system without taking into account other parts of that system (e.g the polity or class), as well as the other systems (e.g. the economy or gender). Secondly, the development of, and relationships between, aspects of a system can take different shapes besides linearity, and the shape of a relationship also depends on the environment. The question is not only whether factors are interrelated, but also how they are interrelated. Therefore, a study should start by taking into account the environment of the system under study, meaning the other systems.

Taking multiple systems into account in empirical studies does not necessarily mean losing focus. As empirical Chapters 7, 8, and 9 on education, household configurations, and religion will show, you can still focus on specific explanations, as long as the analyses' starting point is that of complex systems. This broadened view sheds much more light on possible relationships and their shape. While this does not equal a loss of theoretical focus, the methodological consequence is that data on many more factors should be included and assessed, this compared to a relatively limited focus on the variable(s) of interest in 'classic' studies. Related to this, I agree with King, Keohane & Verba (1994: 20) that simplicity or parsimony should never be a criterion or goal, but seen as an assumption, a theoretical notion.[20]

Incorporating this take on complexity has several consequences for statistical research. Firstly, for quantitative analyses, the inclusion of many explanations places greater emphasis on the trade off between the validity and reliability of the variable(s) of interest on the one hand, and the overall set of included variables on the other. Compared to traditional accounts, this perspective relatively values the second part to a greater extent. A second point regarding quantitative studies concerns the linearity assumption of many regression techniques (e.g. Allison, 1999). According to Walby it is "troublesome" to think in terms of linearity, and she consequently notes that conventional regression techniques can be problematic (2007: 465). On this point, I disagree with Walby, because (in line with the argument made in Section 4.2.1) by using regression techniques much progress can be made in (1) discovering how the interrelatedness of factors takes place (interaction effects); (2) how different levels relate to each other without reducing one level to the other (multilevel analysis) (cf. Walby's concept of 'emergence' [2007: 462–3]); (3) understanding how historical differences – path dependency – shapes current choices (cross-level and temporal interaction effects); (4) knowledge about critical turning points or sudden changes (dummy variables); and (5) adding other forms of non-linearity in models (dummies, quadratic terms). These techniques will all be employed in this thesis.

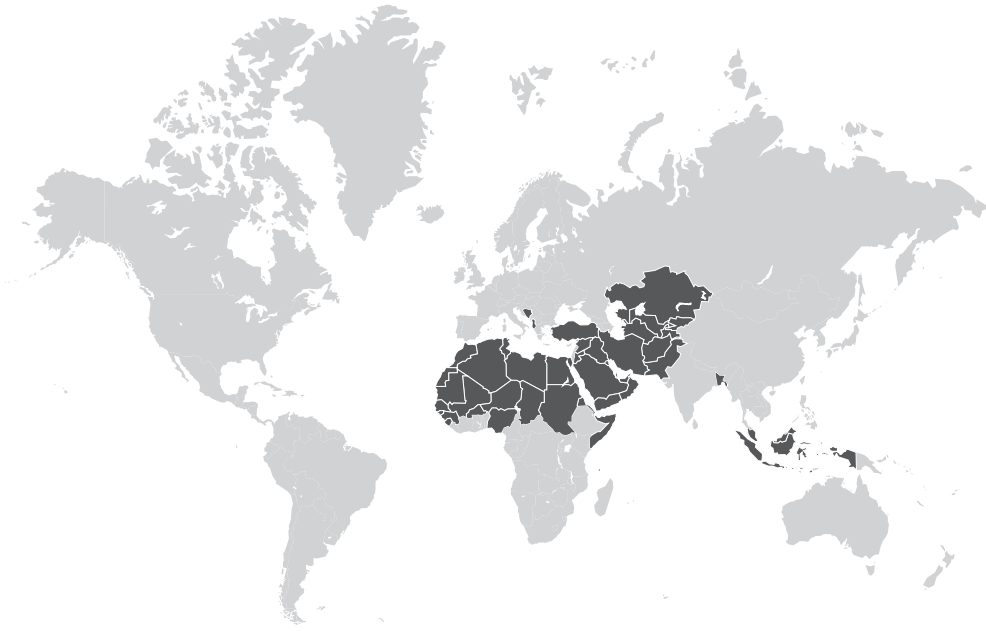
4.3 POPULATION AND CASES

Up till now, I have written about women in Muslim countries as being the subjects of this study. In this section, I will further discuss to whom exactly this refers, and why I have chosen these demarcation criteria.

4.3.1 THE POPULATION: WOMEN IN MUSLIM COUNTRIES

In determining which cases to study, I had to deal with several important questions: (1) At what level(s) do I find the units of analysis (and units of measurement) in this study?; (2) To which substantial (e.g. geographical) units of analysis is this study limited?; and (3) Are there so-called irrelevant negative cases (women that 'cannot' be employed, such as disabled women) within that group that should be excluded from the analyses (see Goertz & Hewitt, 2006; Goertz & Mahoney, 2006)? These three questions collapse into one basic question: What is the population in this study?

Figure 4.1 Muslim countries in 2009



21 Only up to 5 out of 45 to 50 countries do not come up in both selection processes. Examples are Cote d'Ivoire, Eritrea and Kazakhstan.

22 Clark, Ramsbey & Adler (1991) and Clark (1992) use a majority not plurality. I have decided to use a plurality, because a plurality, when large enough – hence the 40% criterion – is still a predominant group and Islam is then the major religion in a country with a plurality of Muslims. Norris & Inglehart (2003b) and Fish (2002) also use pluralities, but are not explicit in terms of percentage, only that the 'predominant religion' determines the classification of countries (e.g. Norris & Inglehart, 2003: 63–6). I have chosen the 40% criterion, because otherwise it is possible that highly pluralistic societies with 20% of the people being Muslim are coded as being a Muslim country, while Islam can hardly be called dominant in those cases.

23 Different ways of classifying countries, such as the majority of population approach (Clark, 1991; Clark, Ramsbey & Adler, 1992; Inglehart & Norris, 2003a), the plurality of population approach (Fish, 2002; Inglehart & Norris, 2003b) or the loose hand drawing historical lines approach (Huntington 1993, 1996) can lead to discussion on some countries or societies (Eritrea, Ivory Coast), but for almost all Muslim countries it leads to the same classification.

24 Definitions of UoA's do not seem to take into account the existence of multilevel research designs. For instance, Gerring (2007: 217, emphasis in original) defines units of analysis as "The species of observation that will be analyzed in a particular research design." This is a nice illustration of how measurement/observation and analysis are conflated.

25 They could however be translated to that: the economic development of a region this woman lives in. This is how rectangular data files are created in multilevel data sets. However, the level of economic development is shared by many women living in one and the same unit, such as a country.

MUSLIM COUNTRIES

Studies of women's employment focussing on Muslim countries or their inhabitants tend either to draw generalising conclusions about Muslim countries vis-à-vis other groups of countries (Western countries in particular) or stress the specificity of a certain country or area. The middle-ground perspective described above (Section 4.2.1) enables me to focus on Muslim countries in general, but without comparing them to other countries. This means that this study will seek knowledge about the 'internal plurality' (Davis & Robinson, 2006) of this 'region', simultaneously enabling me to find general relationships within and among these countries. In short, being a Muslim country is the first demarcation criterion of this study's population.

The question that arises now is what constitutes a 'Muslim country'. Since this study is partly a reaction to the existing 'civilisationist' trend in the literature and it would otherwise be difficult to relate the results of this study to that trend, I will follow their practice in determining which countries are Muslim countries. The core idea of the civilisationists' selection is the predominance of a religion: if Islam is predominant, the country is a Muslim country. Predominance, however, can be formulated in different terms, such as groups of people, culture, and historical rule (e.g. see Clark, Ramsbey & Adler, 1991; Huntington, 1993, 1996; Inglehart & Norris, 2003a, 2003b). Which operationalisation is chosen does have consequences for the in- or exclusion of a few countries, but overall just about the same countries are included in all civilisationist studies.[21] I have chosen to base my selection on the predominance of a Muslim population, because – while still copying the civilisationist selection criterion – it is a clearer criterion than 'having a Muslim culture' and I find it hard to defend to refer to a Muslim country when most inhabitants are not Muslims.

I intentionally use 'Muslim country' instead of 'Islamic country'. The former refers to individuals ('Muslims'), making a Muslim country a country populated by Muslims – the label closest to the actual measurement. The term "Islamic country", on the other hand does not refer to the religion of individual inhabitants, but to the country or state being Islamic itself. This implies a state that is ruled (solely) by Islamic codes and is religious itself. Which countries would belong to this group is open to discussion, but it would be a very limited number, including Iran, Saudi Arabia, and Yemen (see e.g. Spierings, Smits & Verloo, 2009: 509, 519). I use 'countries' and not 'civilisation', because the latter would a priori stress that Muslim countries are a coherent group that is culturally different from other civilisations (cf. Huntington, 1993; Inglehart & Norris, 2003a, 2003b). The focus on culture as primary source of this 'ultimate divide' should be open to discussion instead of assumed or implicitly stated.

In determining which countries are predominantly inhabited by Muslims, I have chosen a plurality of at least 40% of the inhabitants[22] being Muslim according to the CIA world factbook as the demarcation criterion. Based on data for 2009, this means that the study's population contains 52 countries (including the Gaza Strip, West Bank and Western Sahara) ranging from the northern half of Africa, West-Asia, Central Asia, South/South-East Asia to (South-)Eastern Europe (see Figure 4.1).[23]

WOMEN IN MUSLIM COUNTRIES

Contrary to what the above discussion might suggest, this study in the first place focuses on women, not on countries. Women in Muslim countries are the primary units of analysis here. It is useful to distinguish between the units of analysis (UoA) and the units of observation (UoO). Although these terms are often used interchangeably (see Brady & Collier, 2004; Gerring 2007; King, Keohane & Verba, 1994),[24] they are not. The goal of this study is explaining why a woman is employed or not, which means that the unit I am interested in is the individual, the woman, because being employed is a characteristic of hers. In explaining this individual-level phenomenon, I include contextual characteristics, which means that not all relevant explanatory factors are characteristics of the woman herself.[25] I am interested in those other characteristics because they might be part of a causal mechanism that I am studying, which has an individual characteristic as dependent variable. The household, community and country are all secondary units of analysis: they are only relevant because they are part of a woman's context. The units of observation are the units on which I collect information in order to say something about the

Figure 4.2 Included countries

26 By explicitly discussing the two parts of how I define the population, it also becomes more evident why the focus is not on Muslim women, but women in Muslim countries. Muslim women in non-Muslim countries are often not mentioned as part of the Muslim civilisation according to 'civilisationists'. It is the collective culture that is most important. For instance Inglehart & Baker (2000: 36–8) argue that differences within a country are less important than the 'cultural zone' to which a country as a whole belongs. Nonetheless, they find differences within countries that confirm their ideas about cultural differences at the individual level as well. This indicates that studying women with different religions in Muslim countries is interesting as well to shed light on the cultural/civilisationist thesis (see Chapter 9).

27 It is arguable that (large parts of) the meta-theoretical framework is also applicable to individual men.

28 One of these 28 is Zanzibar. Up till 1964 – when it united with Tanganyika to form Tanzania – it was a separate country and it still has a very high degree of autonomy, with an own government that sees Zanzibar as a fully autonomous state within the union of Tanzania. Of its population about 95% of the people adheres to Islam. For the country-level variables most of the information that is used however applies to Tanzania as a whole, because few data sources provide information for Zanzibar alone. Gaza Strip and West Bank were not included purely because there is no DHS, PAPFam or IPUMS survey available for them.

unit of analysis. There are four different UoO's in this study: the woman, her household, the administrative district (province/region/wilaya/governate/...) she lives in, and the corresponding country. In order to measure district-level characteristics, I use individual or household level observations (see Section 4.7); and household characteristics are sometimes based on individual-level observations (Section 4.7).

Despite the focus on women, the previous section used the country level to demarcate the population of this study. As discussed above, the focus on only Muslim countries allows for a focus on the similarities and differences among and within Muslim countries that otherwise would not have been possible. However, the mechanisms as discussed in the theoretical chapter are not per definition restricted to Muslim countries, and might apply to women in other countries as well.[26] [27]

WORKING-AGE WOMEN IN MUSLIM COUNTRIES WHO ARE NEITHER DISABLED NOR IN SCHOOL

So far I have identified women in Muslim countries as the Unit of Analysis. For this population, I will try to find explanatory factors of their employment likelihood. For theoretical reasons three groups of women are deselected from the scope of this study. Firstly, I will apply what Goertz calls the 'Possibility Principle' (Goertz & Hewitt, 2006; Goertz & Mahoney, 2006). This assumes that there are some fundamental variables that make it almost impossible for women to work, regardless of their characteristics in terms of the independent variables. These cases are negative but also 'irrelevant' cases and should be excluded. For this study, disabled women fall in this category: because if they have a severe disability, they are unable to work. Any other influencing factor becomes irrelevant, as they will nearly always score a zero on the dependent variable. Secondly, the specific hypotheses formulated in Chapter 3 are in first instance applicable to women of working age (15–64) only. In this thesis, the scope of these specific hypotheses does not go beyond those ages, because I expect that needs, opportunities and values are translated differently to specific factors for non-working-age women. Thirdly, women who are still in school are also excluded from the population. Schooling and labour participation are partly interchangeable, and it is therefore impossible to determine whether the position of not working but being in school is more similar to the status of being employed or not (e.g. if one sees school as a first step on the labour market). In sum, the population of relevant cases for this thesis only includes women of working age, living in Muslim countries, who are neither disabled nor in school.

4.3.2 FROM POPULATION TO CASES

Given the goals of this research, I want to include as many cases from the population as possible. Including many cases makes it possible to draw more general conclusions, and more cases provide more leverage for complex regression models. Besides the number of cases, the representativeness of the cases is also important.

At the country level, this makes it preferable to include the whole group (population) of about 45 to 50 countries. Given the relative infancy of research on women's employment in Muslim countries, there are no comparable datasets for all Muslim countries available (see also Section 4.4). Nonetheless, this thesis will make major steps forward by making use of a unique data infrastructure enabling the inclusion of 28 countries, representing all geographical regions in which Muslim countries can be found.[28] Among these, the 'classic' Middle East, especially the Gulf's oil countries, is underrepresented and West Africa overrepresented. Still Egypt, Jordan, Lebanon, Syria, and Yemen are all included. A full overview is given in Figure 4.2 and Table 4.1. This sample might not be entirely representative for all Muslim countries, but it does enable me to focus on differences and similarities among (women in) a substantial number of countries from all regions of 'the Muslim world'.

The selection strategy within these countries is that of random (multistage cluster) sampling. In each country, clusters (small geographical areas) are randomly sampled from a list of all the country's clusters. Within each of these clusters, households are randomly sampled and all these households' women between the ages of 15 and 49 are included in the sample. Women aged 50

Table 4.1 Number of selected women and coding of the dependent variable

Country	A Original sample size (women aged 15–49)	B 'A' excluding respondents with missing data on dependent variable	C Number of women from 'B', not in school	D Number of women from 'B', not in school and physically able to work [1]	E Women paid employed in non-agricultural sectors (of women in 'D')
Algeria	33,796	33,662	28,478	28,478	2,554
Azerbaijan	8,444	8,421	7,195	7,195	1,366
Bangladesh[2,3]	10,996	10,988	10,849	10,849	1,499
Burkina Faso	12,477	12,464	11,950	11,950	2,595
Chad	6,085	6,058	5,543	5,543	1,315
Djibouti[2]	6,689	6,626	5,896	5,896	450
Egypt[2,3]	19,474	19,470	19,392	19,392	3,028
Eritrea	8,754	8,736	7,896	7,896	1,046
Guinea	7,954	7,946	7,336	7,336	2,232
Indonesia[2]	32,895	32,847	32,752	32,752	9,833
Jordan[2]	10,876	10,876	10,746	10,746	1,429
Kazakhstan	4,800	4,759	4,038	4,038	1,919
Kyrgyz Republic	3,848	3,848	3,344	3,344	1,536
Lebanon	6,556	6,514	4,996	4,952	1,219
Malaysia	10,500	10,186	8,600	8,556	3,637
Mali	14,583	14,320	13,423	13,423	3,925
Mauritania	7,728	7,618	6,641	6,641	1,630
Morocco	16,798	16,765	15,195	15,195	2,280
Niger	9,223	9,204	8,816	8,816	2,466
Nigeria	33,385	33,233	28,749	28,749	12,694
Pakistan[2,3]	10,023	10,019	10,002	10,002	1,547
Senegal	14,602	14,578	13,344	13,344	4,032
Sierra Leone	7,374	7,331	6,483	6,483	1,118
Syria	12,455	12,455	10,969	10,969	1,459
Tunisia	8,829	8,812	7,109	7,109	1,667
Turkey[2]	8,075	8,075	8,054	8,054	1,464
Yemen	20,180	20,148	18,119	18,065	765
Zanzibar[3]	1,365	1,365	1,185	1,185	458
Total	**348,764**	**347,324**	**317,010**	**316,958**	**71,163**

Notes: (1) Data on ability to work was only present for Kazakhstan, Lebanon, Malaysia and Yemen; (2) Only ever-married women; (3) information on being still in school was only available for a very limited group of women and based on age, years of schooling and age of entry a proxy was created to exclude women from the sample; (3) all these figures are unweighted, the percentages of women being employed can thus deviate from the rates calculated based on this figures in this table.

29 Ever-married women are women who are married, divorced or widowed.

30 Theoretically, I also discussed the global level and explanatory factors at that level. This level is not included in technical terms, because the factors distinguished theoretically at the global level do vary at the country level. For instance, the amount of FDI is a global-level factor, but Morocco has more FDI inflow than Kazakhstan and technically speaking this is considered as country-level variation. Factors that belong to the global level technically would be something such as distance to the nearest star or the number of years that sentient live has been present on a world, a 'globe'.

through 64 are not included in the survey process, despite their being part of the theoretical population. For each country at least several thousands of women are included in the sample. Women from all parts of the countries are included and the datasets list in which district they live – throughout this study, I will use the term 'district' to designate the provinces, governates, wilaya, oblasts, or what these administrative divisions are called in the different countries. Because all districts are generally included in the surveys, this enables me to use 'provincial data' to represent the sub-national contextual level of the community. 383 districts in total are included in the analyses. In total 246,461 households and 348,764 individuals have been randomly sampled. In combination with the large numbers this ensures representativeness within the countries.

Besides case selection in terms of geography, a longitudinal selection has been made. The moment when a sample is taken can influence descriptive statistics and also the outcomes of analyses of causal relationships. It is often assumed that influences are temporally stable (King, Keohane & Verba, 1994; Spierings & Smits, forthcoming), but this has hardly ever been tested. In this study, I want to test my theory about women's employment for 'today's' reality and identify influences that are still at work. To do so, I will generally include the most recent survey for each of the countries selected – with the exceptions of Kazakhstan and the Kyrgyz republic, all surveys date from between 2000 and 2008 (see Appendix 4.1). In Chapter 10, special attention is given to the extent and way in which the effects of explanatory factors can differ over time (their temporal stability).

Overall, the relatively large number of countries, the unique selection of over 350 districts, and the large random samples of households and women make it possible to perform analyses that answer the main questions of this thesis with a fair degree of generalisability. At the same time, the selection strategy makes it possible to look at variations in the characteristics of the households, districts and countries, and how these might explain differences in women's likelihood of employment. The three major limitations in drawing conclusions for the population as a whole are that it does not include all Muslim countries (and no 'oil economies' [Moghadam, 2003: 10] at all), that women are only sampled up to the age of 49, and that for seven countries no never-married women are sampled (Appendix 4.1).[29] Despite the unique richness of the database used, these limitations have to be taken into account when drawing conclusions.

For the empirical analyses in the chapters that zoom in on more specific topics (Chapters 9 and 10) a sub-selection of cases has been made. This selection will be discussed in more detail in those chapters.

4.4 METHODS

The backbone of the empirical analyses in this thesis is made up of multilevel regression models. This enables me to include explanatory variables at the country, district, household and individual level simultaneously without deflating standard errors and it addresses the problem of correlated errors due to the clustering of women within higher level units (see Hox, 2002; Jones & Duncan, 1998; Snijders & Bosker, 1999). Different forms of diversity and complexity will be incorporated in these models. By including possible explanatory factors at the different levels, the model can reveal how much diversity exists and along what lines (see all empirical chapters). By comparing multilevel model results with the results of 'one-level variables only'-models, I will get more insight in causal processes and interrelatedness as described in Chapter 2 (and in Chapters 6 and 10 in greater detail). By using dummies, non-linear relationships can be included, and by adding interaction terms (regular, cross-level or temporal) the context-specific effects of influences can be tested (Chapters 7, 9, and 10 in particular).

Technically, I distinguish four levels in the model: the individual, the household, the district, and the national level.[30] The response variable in my models is dichotomous (whether a woman is employed or not) which violates the assumptions of a normal distribution of errors and of homoscedasticity for OLS regression (Allison, 1999; Pampel, 2000). Hence, I will use logistic (multilevel) modelling. For logistic multilevel models, the basis is the standard logistic regression model:

$$\text{Ln}\,(p_{yi=1}/(1-p_{yi=1})) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_n X_{ni} + \varepsilon_i \quad (1)$$

The X's in this model represent the independent variables, and these are measured at the

31 Malaysia is the only Muslim country in which an IPUMS survey was held.

32 In light of the comparative goal of this study, the discussed characteristics of this collection of surveys makes them preferable over for instance labour force surveys of the individual countries, which are harder to compare, not available for this many countries, do not include the same broad range of variables, and not always include district codings.

individual level (level i, for 'individual'), the level of the dependent variable. The latter in this model is the natural logarithm (ln) of the odds of being (gainfully and agriculturally) employed, and the odds are calculated by taking the chance of being employed for a certain group of women ($p_{yi=1}$) and dividing it by the chance of not being employed ($1-p_{yi=1}$). In the models below the dependent variable will be designated by logit (π).

To add variables at higher levels, the model will be adjusted. For instance, to add explanatory factors at the household level, β_0 is varied at level h (for 'household') – a random intercepts model – and is subsequently modelled at that level. First, β_0 is written as a function of household level factors and in the formula for Y the subscript h is added to denote that the explanatory factors vary at level i and h:

$$\beta_{oh} = \beta_o + \mu_{oh} \quad (2)$$

$$\text{logit}\,(\pi_{ih}) = \beta_{oh} + \beta_1 X_{1ih} + \beta_2 X_{2ih} + \ldots + \beta_n X_{nih} + \varepsilon_{ih} \quad (3)$$

Model (2) allows me to add explanatory variables at this level (the γ's represent the coefficient of household-level variables, while the W's stand for the value of a unit on a context-level variable). μ0h stands for the residuals at the household level.

$$\beta_{oh} = \beta_o + \gamma_1 W_{1h} + \gamma_2 W_{2h} + \ldots + \gamma_n W_{nh} + \mu_{oh} \quad (4)$$

Integrating models (3) and (4) gives us a basic two-level model:

$$\text{logit}\,(\pi_{ih}) = \beta_o + \beta_1 X_{1ih} + \beta_2 X_{2ih} + \ldots + \beta_n X_{nih} + \gamma_1 W_{1h} + \gamma_2 W_{2h} + \ldots + \gamma_n W_{nh} + \varepsilon_{ih} + \mu_{oh} \quad (5)$$

In this model β_0 can be modelled at the district level d. This will result in another 'error' term at level d, which will be modelled including country-level factors, denoted by subscript c. Taking this all together results in the following formula:

$$\begin{aligned}\text{logit}\,(\pi_{ihdc}) = {} & \beta_o + \\ & \beta_1 X_{1ihdc} + \beta_2 X_{2ihdc} + \ldots + \beta_n X_{nihdc} + \\ & \gamma_1 W_{1hdc} + \gamma_2 W_{2hdc} + \ldots + \gamma_n W_{nhdc} + \\ & \delta_1 V_{1dc} + \delta_2 V_{2dc} + \ldots + \delta_n V_{ndc} + \\ & \alpha_1 U_{1c} + \alpha_2 U_{2c} + \ldots + \alpha_n U_{nc} + \\ & + \varepsilon_{ihdc} + \mu_{ohdc} + \varphi_{odc} + \omega_{oc}\end{aligned} \quad (6)$$

Whereby β, γ, δ, and α denote the coefficients for the explanatory factors of respectively the individual, household, district and country level; X, W, V, and U denote the explanatory variables at respectively the individual, household, district and country level; β0 is the intercept; and ε, μ, φ, and ω denote the residuals at respectively the individual, household, district and country level.

All presented models are estimated using the MLwiN 2.20 MCMC procedure, unless stated otherwise (see Section 4.5.3 for a further discussion of this). The MCMC procedure was chosen because it gives the most accurate estimates when logistic models (or, generally speaking, discrete response models) are used (CMM, 2011a; Rodriguez & Goldman, 2001). For each model a DIC (Deviation Information Criterion) statistic is produced and reported, which indicate the models' fit. A lower DIC suggests a better fit. Descriptive statistics and bivariate models will of course accompany the use and comparison of logistic multilevel models. In the thematic Chapters 9 and 10, the models are embedded in an in-depth, descriptive analysis of a country or time period, based on a secondary analysis of existing empirical studies.

4.5 DATA

The analyses in this thesis are mainly based on large datasets from the Pan Arab Project for Family Health (PAPFam) of the League of Arab States, and from the Demographic and Health Surveys (DHS). I also include an Integrated Public Use Microdata Series (IPUMS) survey (for data on Malaysia).[31] All three types of data sets were obtained from the Database Developing World (DDW), where these surveys are brought together and made comparable (DDW, 2009) and they are highly comparable with respect to the goal of this study. At the district and country levels, I have enriched the database data with external data sources.

4.5.1 DATA SURVEYS

Although there are limitations to these surveys, they are well suited for the purposes of this study.[32] Firstly, this database has a unique cross-national scope of comparable datasets and the

33 The age range 15–64 is generally seen as the working age population and country-level databases (such as the ILO or World Factbook) present information on this group (see Appendix 4.1), the survey data used in this study, however, are restricted to the ages 15–49. The data are in that sense not representative for all working aged women and descriptives are somewhat overestimated since older women tend to be less often employed (see Chapter 5); however this bias will probably not lead to very large discrepancies, because of the young populations in these countries.

34 MCMC start from a previously estimated model. I have used weighed IGLS models for that.

different types of surveys included are also highly comparable. In the case of Morocco (2004), PAPFam and DHS even cooperated in conducting the survey. Secondly, because these surveys all include data on which administrative unit (district) the surveyed women live in, I can include a sub-national contextual level for all countries. Thirdly, the broadness of the surveys makes it possible to have reliable data on the question whether a woman is gainfully employed outside agriculture, as well as on the most important demographic and socio-economic explanatory factors at the micro level, including partner information, household structures and proxies for values. Fourthly, the range of variables and the number of cases within each district enable me to aggregate micro-level data to the district level and thus create contextual variables at that level.

4.5.2 ADDITIONAL DATA SOURCES

The data at the individual and household levels come solely from the surveys, while for Chapter 8 district-level data from additional data sources were also linked to the data from the DDW. Adding these external district-level data was however not possible for the very broad comparative analyses. While research would greatly benefit from these kinds of data, there are no external data sources with comparative data at the sub-national level for all these countries. By building a data collection at this level, I hope to make a first step towards offering the research community more opportunities for testing macro- and sub-national-level theories.

In some surveys, two district coding schemes were present (for larger and smaller districts). In those cases, the leading principle was that the sub-national units represent an administrative level within the specific country. If both levels represented administrative units, the lowest level was chosen unless too few (<100) cases were sampled in each district. On average, each of the 383 districts represents about one million working-age women (see Appendix 4.1).[33]

At the country level, data were obtained from existing and well-known sources (e.g. United Nations, CIA World Factbook, OECD, Freedom House) and linked to the DDW. Data were always selected for the year closest to the moment the survey was carried out. For some variables, no data were available but I was able to construct an index myself (see Section 4.6).

4.5.3 DATA ISSUES AND REPRESENTATIVENESS: WEIGHTS AND MISSINGS

As in any survey-based research, several choices have to be made in data management. Besides the specific operationalisation of variables (see Sections 4.6 and 4.7), this also includes the weighing of data and the treatment of missing data.

WEIGHTS

To obtain representative results, data are often weighed in regression models. The MCMC procedure in MLwiN, however, does not take assigned weights into account (CMM, 2011b).[34] Consequently, the weights are mainly used in the descriptive analyses. I use 'mainly' here because some robustness test are performed. Some studies conclude that the usage of weights can have a substantial influence on the results (e.g. Chantala, Blanchette & Suchindran, 2006; Zaccarin & Donati, 2008). Therefore, I will perform robustness tests by estimating the final models using the IGLS estimating procedure with and without weights. Any notable differences, when found, will be discussed in the respective empirical chapters. For example, the comparison of the weighted and unweighted IGLS models in Chapter 6 shows that the exclusion of weights does not have very substantial consequences (Appendix 6.1); only in some cases do the macro-level variables show differences in strength and statistical significance. Nonetheless after performing several robustness tests (weighted IGLS, fixed effects models, and MCMC models with more iterations), the overall conclusions drawn in this study are rather robust.

Having said this, the question of how to weigh should (still) be answered, and in the case of multilevel data this becomes somewhat more complicated than in that of single-level data sets, mainly because the probability of being selected might differ for individuals coming from different higher-level units, because the higher-level units have their own probability of being selected from a larger population (Chantala, Blanchette & Suchindran, 2006; Pfeffermann et. al., 1998; Zaccarin & Donati, 2008). The probability of being selected from the higher-level population is irrelevant for this study, because we cannot speak of a probability sample: all

districts in the chosen countries are included and the countries are selected from one population based on the availability of data. Consequently, the countries and districts are equally weighted (=1) at the respective levels.

At the individual level, the surveys themselves provide weights to ensure the national representativeness of the samples. These weights correct for unequal representation within each country. For the pooled analyses, on women aged 15–49 in the 28 countries, not all women have the same probability of being sampled, as it depends on the ratio of the number of sampled women and the population size of the countries. I will adjust the weight provided by the surveys for countries' populations of working-aged women. The final case weight (FCW_{ic}) is the provided case weight (PCW_{ic}) adjusted on the basis of the respondents per country (R_c), the number of working aged women per country (W_c), total number of respondents in all the datasets (R_{Tot}), and the combined number of working aged women in the countries (W_{Tot}), using the following formula:

$$FCW_{ic} = PCW_{ic} * [(R_{Tot}/W_{Tot}) * (W_c/R_c)]$$

This formula ensures that the overall number of cases does not differ from the number of surveyed women we use in our analyses. For R_c, I have used the number of respondents per country after cleaning the data set and handling the missing cases (see below). W_c is based on the number of working-aged women (15–64) according to the CIA World Factbook of the corresponding year (see Appendix 4.1). The number of women in each country aged 15–49 would be better to use for the calculation of the percentage of women that was sampled per country, but no such (comparable) data were available for all included countries. The use of the age group 15–64 might lead to slight distortions in the adjusted weight FCW_{ic}.

MISSING DATA

I distinguish between two forms of missing data: inexistent data (the question in the survey is inapplicable) and unknown data (the question is applicable, but not answered) (see Allison, 2001).

Missing data due to 'inexistent data' occurs for instance in the case of women who have no partner or have never given birth, but of whom we want to include their partner's education, occupation or age, or their child(ren)'s gender or age. As the reason for this missing information is known, I will include control variables for the group with such missing data (in the form of dummies for having a partner and having children). Consequently, the effects of these missing data may be treated as statistically irrelevant (Allison, 2001: 9–11; Little & Rubin, 2002), and the respondents with such missing data are all given a value equal to the average of the other respondents on that variable.

Information that is missing for unknown reasons (the questioner has not put down an answer, the respondent has not answered the question, or a woman from the DHS women's survey is missing in the DHS household survey) can lead to biased estimates if there are too many respondents with missing data. In these cases listwise deletion is used: a woman with missing data on one of the micro-level variables is removed from the model. With logistic regression, listwise deletion works under broader conditions than when applying linear regression (the latter builds on more restrictive assumptions), and this treatment of missing data produces more robust results than more complicated techniques (Allison, 2001).

In addition, it should be remembered that for seven countries only ever-married women are included in the surveys, this obviously affects the descriptive analyses. But the group of never-married women is relatively small (see Section 5.3.1) and all surveys include women that were once married. If effects for married and unmarried women differ it might also affect the explanatory analyses. However, the excluded group is relatively small and can thus be expected to have a limited effect on the general coefficients.

Overall, it should also be noted that the samples are large and show a wide range on all variables, so that relatively precise estimations can still be made. Of the total sample I have deleted 20,498 cases (6.5%) for the main analyses (and a few more for the analyses in which other independent variables are added [see Chapters 8 and 9, and Table 4.2]). For the dependent variable, the missing cases will be discussed in more detail below.

4.6 MEASURING WOMEN'S PAID NON-AGRICULTURAL EMPLOYMENT

A wide and fierce debate about measuring women's economic activities is going on (e.g. Anker, 1983; Benería, 1981; Chen, Sebstad & O'Connell, 1999; Donahoe, 1999; Langsten & Salem, 2008; Moghadam & Senftova, 2005). From this debate we can distil two important questions that should be answered: (1) What do I want to measure? and (2) How can that be measured? (cf. Assaad, 1997; Langstem & Salem, 2008). The answer to the first question is that I want to measure women's gainful non-agricultural employment (see Section 2.2). The second question will be discussed below.

4.6.1 MEASURING WOMEN'S GAINFUL NON-AGRICULTURAL EMPLOYMENT

As Jansen (2004) nicely shows for (groups of) women in Algeria, some women do not regard specific activities as work, nor their remuneration as wages; this work is reclassified as a religious or cultural practice. In this case, the term for it is ajr – activities that are rewarded with religious merit, not payment (an important social convention of which is that the receiver of the gift is obliged to reciprocate with another gift) – which is socially acceptable, but something classified as remunerated work is not. When translated in terms of measuring 'work', this would mean that the number of women actively engaged in 'work' (see Section 2.2) is underestimated (see also Donahoe, 1999; Langsten & Salem, 2008). Taking a closer look at survey practices also shows that it is difficult to measure work using 'single keyword questions' (questions in which only one word is used to describe economic activities, in the case of DHS the word was 'work') as DHS and PAPFam do; however, these problems turn out to be mainly present in cases of agricultural and informal work, while surveys do a far better job in measuring women's gainful non-agricultural employment.

Langsten & Salem (2008) compare DHS' Egypt 2003 'single keyword question' survey results with the SFT Egypt 2004 results (the SFT is a follow up to the 2003 DHS using a subsample of the DHS) and show that surveys based on a 'single keyword question' or on an 'activities list' (a number of questions including a number of possible economic activities) leads to answers that are highly consistent for women working in professional/technical/clerical occupations. For other occupations (sales, agriculture/animal husbandry, services/manual), there is considerably less of an overlap and the 'activities list' questions lead to higher numbers of women active in these occupations. Almost half (1,168 out of 2,490) of this second group of surveyed women is active in agriculture. The other half, however, is active in non-agricultural work, but is inactive according to the DHS (Langsten & Salem, 2008: 290–3). Langsten & Salem conclude that DHS' use of a single keyword question leads to a measurement bias, because the coverage of economic activities is far greater in the SFT than in the (2008: 293). When the focus is on 'economic activities' or 'work' – as defined in Section 2.2 – Langsten & Salem are right. However, if one wants to measure women's gainful non-agricultural employment 'the SFT's greater coverage' becomes a clear disadvantage (with its own measurement bias). As the authors themselves show, the women active in sales, agriculture/animal husbandry, and services/manual labour who are only identified as active according to the SFT, are more likely to work without payment and in irregular jobs (Langsten & Salem, 2008: 294). With regard to agriculture, the SFT clearly does a better job, but that type of work is not the focus of this study. It seems that a single keyword question method satisfyingly captures women's gainful employment (and additional questions can help to filter out agricultural activities).

Donahoe's study of Egyptian time-use data (1999) confirms the appropriateness of single keyword data for measuring women's gainful non-agricultural employment. She distinguished different groups of economic activities, including 'nonfamilial employment' (paid nondomestic activities – production, trade or service – for a nonfamily member), which largely overlaps with women's gainful non-agricultural employment. Donahoe finds that 16.0% of the sampled Egyptian women fall in this category in 1993 (1999: 551), while the DHS survey of 1995 gives 15.9% of the women being active in the non-agricultural sector and paid, amongst the same group of women (aged 15–49 and presently married). Taking into account the small decline in women's work rates found in different surveys for Egypt in the early nineties (e.g. Langsten &

Box 4.1 PAPFam economic activities questions

Q112	Besides housework, do you do any work?
Q113	As you know, some women do some work for some payment, and others own a business or help the family in cultivation or trading. Do you do any work of these or of others?
Q116	What main work did (do) you do? Write in detail the work as mentioned.

Source: League of Arab States, Pan Arab Project for Family Health (PAPFam) & Syrian Arab Republic, Office of the Prime Minister, Central Bureau of Statistics. (2001) The Family Health Survey in the Syrian Arab Republic. Principal Report, Annex 2: Survey Questionnaires

Box 4.2 PAPFam economic activities variables

All six countries

Variable	**Values**	**Variable**	**Values**
Occupation	-9 DK -8 Missing 1 Directors 2 Professional 3 Administrators 4 Clericals 5 Salesmen, services 6 Agriculture, fishing 7 Workers 8 Simple labour	Work status[1]	-9 DK -8 Missing 1 Salaried employee 2 Self employed 3 Employer 4 Unpaid family worker 5 Unpaid apprentice

Algeria, Lebanon, Tunisia, Yemen[2]		**Djibouti, Syria[2]**	
Variable	**Values**	**Variable**	**Values**
Economic activities[3]	-9 DK 1 Working 2 Unemployed 3 Seeking work 1st time 4 In school 5 Housewife at home 6 Wealthy enough 7 Retired 8 Handicapped 9 Other	Member still in school	-9 DK 1 Currently attending 2 Attended in past 3 Never attended

Notes: (1) There is some variation in the answer labels for the different countries; in all surveys a distinction is made between employees, (self-)employers and unpaid workers; (2) For Algeria, Lebanon, Tunisia, and Yemen the data included a variable indicating the economic activities of a women, for Djibouti and Syria the data only included a variable indicating whether the woman was still in school; (3) The categories differ somewhat by country: only Lebanon and Yemen included respectively 'cannot work' and 'handicapped'; all countries include the category 'In school'.

35 For Bangladesh the question was only asked to women aged 24 and younger; for Egypt the variable had missing for 84% of the women; in the Pakistani and Zanzibari surveys an answer was missing for several hundreds of women.

Salem, 2008: Figure 1), the DHS survey does not seem to underestimate 'paid non-agricultural employment' compared to Donahoe's figures based on time-use information.

4.6.2 THE QUESTIONS AND OPERATIONALISATION

This last section on the dependent variable will be devoted to how the different answers to the survey questions are combined to select the population (women in Muslim countries that are neither in school, nor disabled) of this study and construct its dependent variable. For an overview of the sample sizes, the selected number of women, and the number of gainfully employed women by country, see Table 4.1.

PAPFAM

Several questions in the PAPFam surveys help to select the population of this study and determine whether a woman is gainfully employed in the non-agricultural sector. Box 4.1 presents the three main questions (cf. section 4.5.2). Based on these survey questions, the datasets report three important characteristics used in the coding: a woman's occupation, a woman's work status, and a woman's form of economic activities. Box 4.2 presents these variables.

All women that had valid answers recorded for work status and/or occupation were included. Consequently, 288 women were excluded. Subsequently, all women 'in school'/ 'currently attending school' (12,650) were deselected. For Lebanon and Yemen (see Box 4.2) it was also known whether a woman was physically unable to work. These women (98) are not part of the population and excluded as well. This leaves 75,469 women who are part of the population and on which sufficient data are available to determine whether they are gainfully and non-agriculturally employed.

The women with a non-agricultural occupation according to their scores on 'occupation' (scores 1–5, 7, 8) and being (self) employed or employer according to 'work status' (1–3) were considered to be gainfully employed outside agriculture. The women whose occupation was unknown (-8) were not working according to the 'economic activities' variable (scores 2 and up) and consequently not considered to be gainfully non-agriculturally employed. 213 women were known to be active on the labour market, though their occupation was missing (-9). Of these 213, the women who were (self-)employed or employee were considered to be gainfully non-agriculturally employed. The other part of the 213 are not seen as gainfully non-agriculturally employed. They are likely to be active in agriculture: the sector that registers the most unpaid working women in these surveys.

DHS

The three main questions I used from the DHS survey – very similar to the PAPFam questions – are given in Box 4.3. Based on these questions the surveys report two important variables: a woman's occupation and the form of payment. Together with her educational status, these are used to select the cases and construct the dependent variable (see Box 4.4).

All women without a valid code on occupation were excluded (838). The DHS household surveys ask whether a woman is still in school, the answer to which was used to exclude women who where still in school from the sample. For four countries (Bangladesh, Egypt, Pakistan, Zanzibar) these data were not available for a considerable number of women.[35] In these cases, an alternative measurement was used: women were considered to still be in school if their highest educational level (another survey question) had an answer including 'incomplete' and they were not older than the number of years they had been in school plus the age of school entry for that country's schooling system. For women with an educational degree coded as being 'higher than secondary', it is unclear whether they had completed tertiary education or not. These women were assumed to be still in school if they were not older than the number of years they had been in school plus the age of school entry, and if the number of years that they were enrolled in this higher education was below the number of years that most people need to complete tertiary education – in most countries this is four years. As some non-working Azerbaijani, Bangladeshi and Burkinabe women were coded as students in a more refined occupations variable present in

Box 4.3 DHS economic activities questions

807	Aside from your own housework, have you done any work in the last seven days?
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?
811	What is your occupation, that is, what kind of work do you mainly do?

Source: Measure DHS. (2006) Model Questionnaire. With Commentary. Basic Documentation Number 2. Section 8.

Box 4.4 DHS economic activities variables

Variable	Values	Variable	Values
Occupation[1]	0 Not working[2]	Type of earnings[3]	0 Not paid
	1 Prof., Tech., Manag.		1 Cash only
	2 Clerical		2 Cash and kind
	3 Sales		3 In kind only
	4 Agricultural self-employed	School attendance[4]	0 Not attended during current school year
	5 Agricultural employee		1 Attended at some time during current school year
	6 Household & domestic		
	7 Services		
	8 Skilled manual		
	9 Unskilled manual		

Notes: (1) There is some variation in the answer labels for the different countries. But the distinction between not working, agricultural work and other work is always clearly made; (2) For Azerbaijan, Bangladesh and Burkina Faso a more refined coding was present for 'Not working' women, including being a student and being disabled; (3) In three countries the data is conflated and this variables only tells if at least some cash is earned by the women, since that is basically the same as the selection of category 1 and 2 I use, this is no problem whatsoever; (4) For Bangladesh, Egypt, Pakistan and Zanzibar, this variable includes a considerable number of missings; based on age of entry, age of the women, and their educational attainment a proxy for being still in school was created and used (see text).

36 However, I do not rely heavily on this variable, because with the absence of formal contracts and social benefits, men that have no job often become active in some family business or informal job. Consequently, very few men indicate to be unemployed. Real unemployment can be considered much higher than what is derived from these surveys. This would bias the results against finding an effect, because men who are classified as employed are actually not really employed or decently paid.

the surveys for these countries, they were excluded as well. In total, I coded 15,078 women from the DHS surveys to be still in school. For Kazakhstan it was furthermore known if women did not work because of a disability. Taking this into account led not to the exclusion of more women.

Of the over 200,000 selected women, all women that had no agricultural job, were not 'not working', and were paid at least partly in cash are considered to be gainfully employed outside agriculture. For Jordan no information on payment was available. However, other variables showed that of the non-agriculturally employed women, all except four were self-employed or employees, and that in this country almost 90% of the non-agriculturally employed women had a professional or clerical occupation. Consequently, I decided to treat all women with a non-agricultural occupation as being gainfully employed. For Pakistan, the 'type of earnings' variable shows a considerable number of missing data. In cases where the data were present, however, the women with a non-agricultural job were almost all paid at least some cash. Based on this I decided to code the women without an entry on earnings but with a non-agricultural job as being gainfully employed.

IPUMS

The data in the IPUMS for Malaysia was highly similar to those in PAPFam and the same procedure was followed.

4.7 INDEPENDENT VARIABLES

In this section I will discuss how the factors mentioned in the hypotheses in Chapter 3 are measured (see also Figure 3.1). This will first be done for the micro-level hypotheses (individual and household levels), then the district level and finally the country level. Statistically, some of the micro-level variables are included at the individual level of the model (e.g. education) and others at the household level (e.g. living in an urban area). If women in the same household can have different values on it, it is an individual-level variable. This statistical distinction, however, should not be confused with the theoretical distinction made in Chapters 2 and 3. Theoretically it is important to understand the embeddedness of individuals in a household, because it draws attention, for instance, to the importance of the partner and household structure (see Chapter 8). Some of the household characteristics (e.g. having a partner and having children), however, may vary statistically at the individual level. Of two women living in the same household, one might be married and the other might be single. However, in an attempt to prevent too much confusion, I will discuss the micro-level variables at once. Nevertheless, Figure 3.1 shows the theoretical levels of each factor, while in Table 4.2 the statistical levels are leading. Table 4.2 provides an overview of the variables, including descriptives and information on the missing data.

4.7.1 INDIVIDUAL & HOUSEHOLD LEVEL

Related to the 'needs hypotheses' (the left quadrant of Figure 3.1), three variables are operationalised. To measure whether a male breadwinner is present, I include two variables. Firstly, a dummy is used to indicates whether (1) or not (0) the household head is male and between the ages of 18 and 65. Secondly, I include a dummy for the presence of a male partner based on the marital status of the women: (0) no partner is present; (1) a partner is present. Both dummies focus on the presence/absence of a male person in the household position of being responsible for fulfilling the economic needs of the household. Another possible indicator comes from a variable used to measure socio-economic status (see below): the partner's employment status. If a partner is indicated having no job, this signals that the chance is higher someone else needs to provide the household with an income.[36] The presence of children is measured for each individual woman. The number of children (aged 14 and under) is taken and divided in four groups: no children, 1 or 2, 3 or 4, and more than 4. Because young children are expected to have higher care needs, I distinguish women that have at least one child below the age of 6 and women without children below that age. This means that the presence of children is measured in seven categories: (1) no children, (2) 1–2 children, all older than 5, (3) 3–4 children, all older than 5, (4) 5 or more children, all older than 5, (5) 1–2 children, at least one younger than 6, (6) 3–4 children, at least one younger than 6, (7) 5 or more children, at least one younger than 6.

Table 4.2 Overview main variables by statistical level

Factor (Hypo)	Variable	Values[1]	Average (s.e.)[2]	Missings[3]
Individual level (n=316,958)				
male breadwinner	partner present[4]	(1) yes	0.768	49
presence of children	children	(0) no children	0.343	0
		(1) 1or 2, older than 5	0.137	
		(2) 1or 2, at least 1 younger than 6	0.239	
		(3) 3 or 4, older than 5	0.041	
		(4) 3 or 4, at least 1 younger than 6	0.173	
		(5) 5 or more, older than 5	0.003	
		(6) 5 or more, at least 1 younger than 6	0.064	
human capital	education	(1) No primary completed	0.538	445
		(2) primary completed, secondary not	0.276	
		(3) secondary completed, no tertiary	0.127	
		(4) at least some tertiary	0.060	
socio-economic network	partner's occupation[3]	(1) agriculture	0.312	8,184
		(2) blue collar	0.277	
		(3) lower white collar	0.188	
		(4) upper white collar	0.179	
		(5) unemployed	0.044	
traditional values	partner's education[3]	(1) No primary completed	0.468	11,315
		(2) primary completed, secondary not	0.283	
		(3) secondary completed, no tertiary	0.153	
		(4) at least some tertiary	0.095	
	age at birth first child	min: 6 max: 49	20.30 (4.35)	207
	age difference with partner (partner-women)	min: -35 max: 67	8.07 (7.29)	4,536
control variable	age	min: 7 max: 49	30.97 (9.27)	0
Household level (n=242,410)				
male breadwinner	Household head is male aged 18–65	(1) yes	0.802	251
urban area	living in a city	(1) yes	0.453	0
traditional values	Traditional family structure	min: 0 max: 2	0.33 (0.50)	923

Table 4.2 Continued

Factor (Hypo)	Variable	Values[1]	Average (s.e.)[2]	Missings[3]
District level (n=383)				
economic development	Wealth level	min: 0.01 max: 0.87	0.47 (0.27)	6[6]
male labour supply	Male non-employment	min: 0.00 max: 0.71	0.06 (0.10)	0
service sector jobs	Proportion white collar jobs	min: 0.03 max: 0.81	0.44 (0.15)	0
Light manufacturing	Proportion skilled labour	min: 0.01 max: 0.48	0.21 (0.10)	0
Service + light manufacturing[5]	Degree of urbanisation	min: 0.00 max: 1.00	0.44 (0.28)	0
Women in public sphere	Proportion of women in higher education and the labour market	min: 0.00 max: 0.79	0.21 (0.16)	0
Traditional care roles	Prevalence of traditional household	min: 0.08 max: 0.76	0.33 (0.15)	0
Country level (n=28)				
Economic development	GDP per capita in thousands	min: 0.49 max: 8.16	2.84 (2.29)	0
Foreign direct investment	Ln (FDI three years average (% GDP))	min: -1.11 max: 3.50	0.92 (1.10)	0
Democracy	Freedom House civil liberties and political rights	min: 1 max: 5	2.41 (1.24)	0
State institutionalisation of conservative Islam	Codification of Islam in constitution	min: 0 max: 6	1.64 (1.83)	0
Traditional family policies	Gender unequal policies and laws (based on OECD GID)	min: 0.06 max: 0.71	0.41 (0.17)	0
Public sector size	Government expenditures (% GDP)	min: 5 max: 41	14.68 (7.67)	0
Social safety net	Family Allowance policies (dummy)	(1) yes	0.51	0

Notes: (1) the presented minimums and maximums are the extremes as they are present in the data, not the conceptual/possible extremes; (2) these figures are based on the unweighted data; in the case of nominal/categorical variables no standard deviation is reported and the average represents the proportion of cases falling in the designated category; (3) 'impossible missings' (see Section 4.4.3) are not included as missing here; (4) these variables are theoretically part of the household level, but measured at the individual level, the missing should therefore be interpreted related to the n at the individual level; (5) the degree of urbanisation is expected to measure both the presence of light manufacturing and service sector jobs, as explained in the text; (6) all these cases were given scores as described in the text, only cases with missing on the individual and household level were deleted.

37 *Qu'ranic* school in Mauritania is considered to be pre-primary education.

38 The spouses' age was obtained from the women. This might be not always accurate. In some cases it led to very extreme or even impossible values on this variable. In those cases the value was topped to the nearest high or low value in that country. All recoded values were at least lower than – 19 or higher than 42.

One micro-level variable is used to measure the factor of the 'societal needs, women's opportunities' or the lower quadrant of Figure 3.1. Whether or not a woman lives in an urban area is answered by the household's location. If a household is settled in a city it is coded (1) on the dummy 'living in a city'; if not, it is coded (0).

The quadrant at the right side in the figure concerns 'opportunities', and those are determined with two variables. The degree of human capital of women is measured by the women's educational level. I distinguish four categories here: (1) no completed education, (2) primary completed, (3) secondary education completed, (4) at least some tertiary education.[37] The extent to which a household has a higher-level socio-economic network is more difficult to measure. However, one of the important aspects of it is the household's socio-economic status, which a partner's occupation points to. This can indicate the socioeconomic network to which a woman has access (through her partner). The variable is coded in five possible values: (1) agriculture, (2) blue collar, (3) lower white collar, (4) upper white collar, (5) unemployed. Blue-collar includes 'Skilled manual' and 'Unskilled manual' from the DHS Surveys and 'Workers' and 'Simple labour' from the PAPFam surveys. Lower white-collar encompasses 'Services', 'Sales' and 'Household & domestic' and 'Salesmen, services'; upper white-collar encompasses 'Professional, technical, Managerial' and 'Clerical' and 'Directors', 'Professional', 'Administrators' & 'Clericals'; Agricultural encompasses 'Agriculture self-employed', 'Agriculture employee' and 'Agriculture' & 'Fishing'. The surveys also provide information based on which the occupation of the household head could be deduced. However, this information is not used, because it not only would include a woman's occupation if she is the household head, but also because there are too many missing data on this subject (78,428 cases of unknown data, see Section 4.4.3).

The last group of variables aims to measure traditional values (the upper quadrant in Figure 3.1). For the internalised values or the values held by household members no direct questions are present in the surveys. Therefore, a set of four variables based on behaviour that taps into these values will be used as proxies. The first is the age difference between partners in a relationship: a larger age difference (the male's age minus the female's) indicates more traditional attitudes (see Wheeler & Gunter, 1987);[38] the second is the age of the woman when she gave birth to her first child, as a younger age indicates more traditional attitudes (see Civettini & Glass, 2008; Varea, 1993). Both are measured on an interval scale in years. Age at first marriage was also considered, but for a very substantial number of women data were missing on this variable. The third variable is a construct based on the 'traditionality' of the family structure. Households that were extended and in which the household head was in a polygynous relationship get a score of (2), if the household is either extended or has a head in a polygynous household it get a score of (1), and if it was a nuclear household without a polygynous relationship the score is (0). The fourth variable focusses exclusively on the values held by the partner. Here, the educational level of the partner of a woman is used as a proxy, the assumption being that higher-educated partners are less traditional. Because a woman's own educational level and her partner's occupational status are also in the model, I expect that the partner's educational attainment will mostly tap into the values held by the partner of the woman and not the socio-economic position. The partner's educational attainment was measured in the same four categories as for women themselves: (1) no completed education, (2) primary completed, (3) secondary education completed, (4) at least some tertiary education.

Besides these variables directly related to the factors mentioned in the theoretical chapter, I will include age as a control variable. Indicating the stage of life a woman is in, it might capture needs, opportunities and values simultaneously. This is not very useful in distinguishing the different influences of the three conditions, because the effects might work simultaneously through age. Nonetheless, age accounts for variation in women's employment related to stages of life that are not captured by the other factors and thus it is an important control (e.g. Glick & Sahn, 1997, 2005; Hirschman & Aghajanian, 1980). To grasp the expected hyperbolic function of age – lower employment at young and older ages, higher in between – age is included both in years as well as in its quadratic term.

39 This EFA was based on the district level data (n=383) and I used principal axis factoring (which gives the best results with non-normal distributed data [Costello & Osborne, 2005]) with oblique rotation (which is best to use if factors might be correlated, as is almost always the case in the social sciences [Costello & Osborne, 2005] – it should be noted that this is quite irrelevant if only one factor is extracted).

40 On each of the assets there were at least some missing data: Television, Refrigerator, Car, Telephone (18); Running water (24); Electricity (36). For each district at least one of the assets was present and for 342 information on all assets was available. The only exception are the six Djiboutian districts for which all information was missing. For Djibouti the scores are calculated using multiple imputation based on a regression model whereby the independent variables are the districtal percentage of people aged 25 to 49 that have at least some tertiary education, the districtal percentage of people aged 15 to 49 that have not enjoyed any education, and the districtal sex ratio. All effects were highly statistically significant ($p<0.001$) and the adjusted R-square was 0.604.

41 In the PAPFam surveys the equivalents are 'workers' and 'simple labour'.

42 This is based on a closer look at the makeup of the skilled manual labour for the women in the datasets that provide more detailed information about occupation (only a few do). In Azerbaijan, for example, the larger part of women coded as being active in light-manufacturing are active in 'food processing and related trades workers' and 'textile & garment & related trades workers'. In Burkina Faso it are mostly 'crafts & production of goods' workers. For Nigeria almost all women in this category are active in one of the following three trades: 'spinners, weavers, knitters, dyers and related workers', 'food & beverage processors', and 'tailors, dress makers, sewers, upholsterers & related workers'.

43 This claim is only made for the datasets used in this thesis. I have taken a look at other data sources such as the ILO Laborsta employment data. The classification in these data mainly differs on the blue-collar labour, making a comparison difficult and close to useless. The categories used there are 'craft and related trade workers', 'plant and machine operators and assemblers', and elementary occupations'. While the latter two seem to almost exclusively include heavy manufacturing, the first mixes light- and heavy-manufacturing jobs.

44 This variable includes the non-agricultural employment of women, but not in absolute terms. It is a measure that is relative to men's non-agricultural employment. Therefore it can be included in the models in which women's paid non-agricultural employment is the dependent variable.

4.7.2 DISTRICT LEVEL

At the district and country levels, the models include economic development. At the district level, I include a variable that measures the district's level of wealth. By aggregation I derived the number of people in a district with a TV, a telephone, a refrigerator, a car, and access to running water and to electricity. Exploratory factor analysis (EFA) with these six factors clearly showed that they load on one factor (see Appendix 4.2).[39] The factor loadings are applied as weights in averaging the scores on household assets. This takes into account the relative extent to which an item is related to the underlying concept (factor). The districts with missing data on one or more assets are included by calculating the same weighted average, leaving out the missing asset.[40] The average of these weighted variables is taken as an indicator of the economic development level in the district. Conceptually the scale runs from 0 to 1. The depletion of the male labour supply is measured by taking the proportion of men that were not employed. To measure the level of non-employment, I aggregated the information on the partners' – who are all men in the data sets – employment. All partners who were not involved in a job were considered not-employed. If more men are not-employed, the supply of male labour is larger. This is measured on a scale ranging from 0 to 1.

Next, both service-sector jobs and light-manufacturing jobs focus on the labour market structures and the types of jobs available. The labour market structure in a district can be charted by aggregating the proportion of people active in a certain occupation compared to all people active on the labour market. The occupation variables provided in the survey do not fully overlap with the two theoretical variables, but I can create two variables that approximate these labour market structures. For service sector jobs, I take the proportion of all women and their partners if they are aged 25 and over and had a white collar job, and divide this by the total number of working women and partners. This age limitation was chosen since many service-sector jobs require secondary or tertiary education. For 'light-manufacturing jobs', I focus on the blue-collar jobs, but not all. All datasets make a distinction between skilled and unskilled manual labour.[41] The latter includes rougher labour such as 'mining', 'construction' and 'production workers'; jobs that are general considered to be part of the heavy industries. 'Skilled manual labour' on the other hand includes jobs like 'assemblers', 'paper/plastic workers' 'drivers' and 'confectioners', and for women mainly jobs in the food and textile industry.[42] In other words, there is considerable overlap between 'skilled-manual labour' and 'light-manufacturing jobs',[43] which is generally considered to include the manufacture of small electronics and home appliances; textiles, cloths and shoes; food; and small furniture. Clearly not all light-manufacturing jobs are captured by the category 'skilled-manual labour' and not all harder manufacturing by 'unskilled-manual labour', but a decent indication of the labour market structure can be derived from these data. I therefore take the proportion of all women and partners that had a skilled manual-labour job against the total number of working women and partners. In addition to these labour market structure variables, I include a more general measurement of job opportunities: the degree of urbanisation in the district (in addition to 'living in a city' at the household level). The assumption underlying this variable is that in more urban areas the number of service-sector and light manufacturing jobs is higher than those of other manufacturing and agricultural jobs. Therefore the degree of urbanisation captures these two aspects as well. The degree of urbanisation is measured by the proportion of people living in an urban area of the district. All three discussed variables range from 0 to 1.

Finally, two values variables will be included at the district level. The women in public sphere variable is based on the extent to which the number of women present in the non-agricultural labour market compares to men and the same for higher education.[44] Per district, the total number of women who were non-agriculturally employed or had finished a secondary or tertiary education is divided by the total number of women and men (i.e. partners) that were non-agriculturally employed or had finished a secondary or tertiary education. For education, I only used ages 25 through 49, when higher education has definitely been concluded and in order to focus on people who have finished education in the last decades and not long ago. For labour market participation the focus is on the current situation at the labour market, and all women (15 through 49) and their partners are included. The average of the figures for the

Box 4.5 State institutionalisation of conservative Islam

Indicators
-Islam is mentioned as part of the history of the country
-Islam is the state religion
-Freedom of religion is not guaranteed
-The country is called an 'Islamic state'
-Only a Muslim can become head of state
-The *Shari'a* is foundational to other laws

Source: Spierings, Smits & Verloo (2009)

Box 4.6 Traditional family policies indicators

Variable	Values
Family Code	Parental authority
	Inheritance
	Polygamy acceptance / legality
Civil Liberties	Freedom of movement
	Dress code in public
Physical Integrity	Violence against women/ Legal indicator
Ownership Rights	Women's access to land
	Women's access to bank loans
	Women's access to property other than land

Source: OECD GID

45 In the factor analysis including the extended-family item, the factor loading of household size was higher and above 0.4. That has been one of the considerations to include in the factor even though the factor loading is between 0.35 and 0.4 in Appendix 4.3.

46 There is some – valid – criticism on the database, for instance its bias towards giving Muslim countries lower scores due to the inclusion of some indicators (dress codes) and the measurements without including equivalent indicators on which non-Muslim countries would score higher (Verloo & Van der Vleuten, 2009). This critique, however, is not applicable here, because the sample of countries only includes Muslim countries.

47 Turkey has progressive parental authority (0) and polygamy (0) family codes and a somewhat less progressive inheritance code (0.5), which makes a score of 0.17 on Family Code. On both Civil Liberties and Ownership Rights it scores 0, and the Physical Integrity variables score somewhat above the minimum (0.25). The overall score of Turkey is then 0.10. For Djibouti, the Family Code score is 0.83, because it has a Muslim Family Code (for Muslim women only). The Civil Liberties are among the lowest (0.5) and Physical Integrity is limited with for example the regular occurrence of FGM (0.75). Together with an Ownership score of 0.67, this leads to an overall score of 0.69.

labour market and education is used as the indicator for presence in the public sphere. A higher score indicates a relatively stronger presence of women in the public sphere, and conceptually the variable runs from 0 to 1. The second values variable measures the prevalence of traditional care roles with a traditionalism index. The index is based on aggregated information about the average household size in a district, the proportion of polygynous households in a district, the average age difference between a woman and her partner in a district, and the district's average age of women at the birth of their first child. A factor analysis has shown that these four items all load on one factor (see Appendix 4.3). The proportion of households that was extended was also included but does not seem to belong to the same underlying factor.[45] All four items were recoded to scales from 0 to 1 (1 being more traditional). Using the factor loadings of an EFA with the four rescaled items as weights, the weighted average of the four items is determined. A higher score thus indicates a higher degree of traditionalism in the district.

4.7.3 COUNTRY LEVEL

Statistically speaking, seven variables are to be operationalised at the country level: the six country-level factors in Figure 3.1 and FDI as a theoretically global factor. Economic development is also included – just as it was at the district level – and measured in the conventional way: the GDP per capita (in 1990 international dollars per thousand) (Maddison, 2008). As Maddison gave one and the same GDP/c for Eritrea and Ethiopia, that figure is used for Eritrea. Foreign direct investments are measured by the average net inflow as a percentage of GDP per year, over the course of the three years before the micro-level survey took place (WDI). I used the natural logarithm of this figure because three countries – Azerbaijan (33%), Chad (33%), and Jordan (16%) – had FDI rates far higher than the other countries (the maximum among the other countries is 5⅔%). To determine the level of democracy, I fall back on the Freedom House Political Rights and Freedom House Civil Liberties scores (Freedom House, 2010). The average of the two is recoded so that a high score corresponds with a high level of democracy. The scale runs from 0 to 6.

The factor of state institutionalisation of conservative Islam is based on the measurement introduced in Spierings, Smits & Verloo (2009). Based on the constitutions of the countries, this variable indicates to what extent conservative Islam is codified in the political structure of the state and the measurement provides a comparable indicator of institutionalisation. Each constitution was analysed and given a score running from 0 to 6 based on the presence of six indicators of the incorporation of Islam in the constitution (see Box 4.5). Spierings, Smits & Verloo (2009) provide no scores for Eritrea and Zanzibar. I used the same coding scheme in this study.

There are hardly any comparative data available on traditional family policies in Muslim countries. However, the OECD has recently constructed a new database – the Gender, Development and Institutions database (Jütting, Morrison, Dayton-Johnson & Drechsler, 2008; OECD, 2010) – that includes some cross-country data on gender policies. This database provides "12 innovative indicators on social institutions, which are grouped into 5 categories/subindices: Family Code, Physical Integrity, Son Preference, Civil Liberties and Ownership Rights" (OECD, 2010).[46] Based on these data, the OECD created an overall index. In line with this, I have constructed a new overall index based only on the items that focus on policies and laws (see Box 4.6). Within each of the four subindices used here, the average score of the indicators is taken, the average of the four subindices is subsequently used to calculate the country's overall score. A higher score indicates more inequality in policies and laws, and a policy regime geared towards more traditional family life. These data are based on 2009, the only year available in the online OECD GID database. Djibouti and Turkey are missing in the database. Based on qualitative comparisons of Turkey and Djibouti with the other countries, they were given scores relative to the countries on which data were available.[47] This led to scores of 0.10 for Turkey and 0.69 for Djibouti, ranking them respectively second from the bottom and second from the top.

For the measurement of the public sector size there also were few data available. The World Development Indicators of the WorldBank Group, however, do include an indicator of the general size of government in terms of public expenditures. In the absence of more precise data, I used this as a proxy for public sector size (WDI). The public expenditures are measured

48 The total recurrent expenditures of the government divided by the GPD at current market prices (both in million Nairas): 1,589,270.00 / 20,657,317.70.

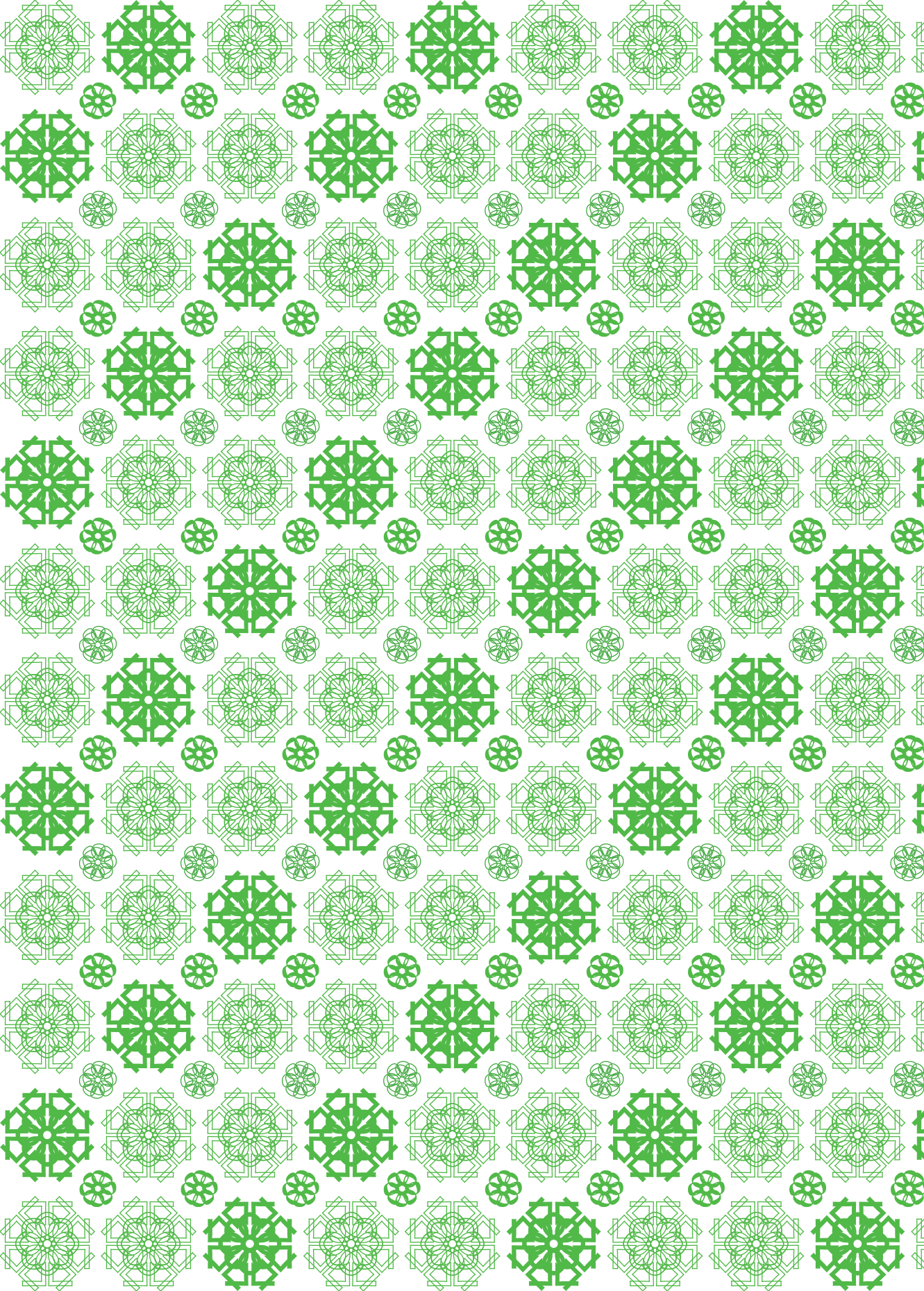
as a proportion of the GDP and range conceptually from 0 to 1. As for Nigeria this information is missing (also for adjacent years), I have calculated a figure for Nigeria based on 2007 data presented in Nurudeen & Usman (2010).[48]

Lastly, I have included the presence of a social safety net. For this variable, a dummy is created based on the country summaries of the Social Security Online database (Social Security Online, 2011). I have taken the presence and extent of family allowances as bases for the operationalisation, because the theoretical focus is on the decrease in women's economic needs. The more generous family allowance policies are (in terms of scope and size), the lower the (number of households with) economic needs (see Section 3.6). Countries without family allowance policies according to this source were coded (0), while countries with some sort of family allowance benefits were coded (1). The policies, of course, differed somewhat by the amount of the allowance, but are largely comparable in coverage (unemployed people and widows with children below the age of 14, and sometimes a poverty threshold is used), which made it difficult to make a further distinction among the countries with family allowance policies. On Djibouti and Eritrea no information was present on social security policies. Alternative sources, such as the International Social Security Association (ISSA, 2011), do not provide information on these countries. From this it is concluded that the social security policies (including family allowance) in Djibouti and Eritrea are minimal and thus they were coded to be (0).

4.8 CONCLUSIONS

This chapter has discussed the methodological backbone of this thesis. I have argued that a focus on women in Muslim countries provides the means to test for general relationships without veiling the differences among and within countries. Based on the idea of the concept's causal characteristics, I have further refined the population to working-aged women who are neither in school nor disabled. Subsequently, the cases within this population have been selected based on availability of information, which led to the selection of 28 Muslim countries, 383 districts, and 296,460 women (after deleting respondents with missing data) from about 227 thousand households. These data will be analysed using multilevel regression models with four levels (countries, districts, households and individual women), by which all theoretical levels are covered. In these models, women's gainful non-agricultural (self-)employment will be the dependent variable. In making these choices, I have discussed the commonly heard critique on the use of surveys in measuring women's economic position. The surveys (here: DHS, PAPFam, IPUMS) are indeed not suitable for measuring all kinds of women's economic activities, but it is incorrect generally to discredit them. I have shown that they are well suited for measuring some aspects of women's economic activities, amongst which the dependent variable of interest in this thesis. Subsequently, I have discussed how the main explanatory factors were operationalised, what additional data sources were used, and which new constructs were created for testing the hypotheses formulated in Chapter 3.

In the next two chapters, I will describe the employment situation in the 28 countries and analyse the relationship between women's employment and the explanatory variables discussed in this chapter. The models presented in Chapter 6 will function as the background of the four subsequent thematic chapters. Chapters 8 and 9 use additional data sources or variables; Chapter 8 includes more household structures; and Chapter 9 uses micro- and district-level data on religion. Moreover, in Chapter 10 on Egypt I will also use DHS surveys from other years to enable a longitudinal perspective. More information regarding those data and measurements will be provided in the relevant chapters.



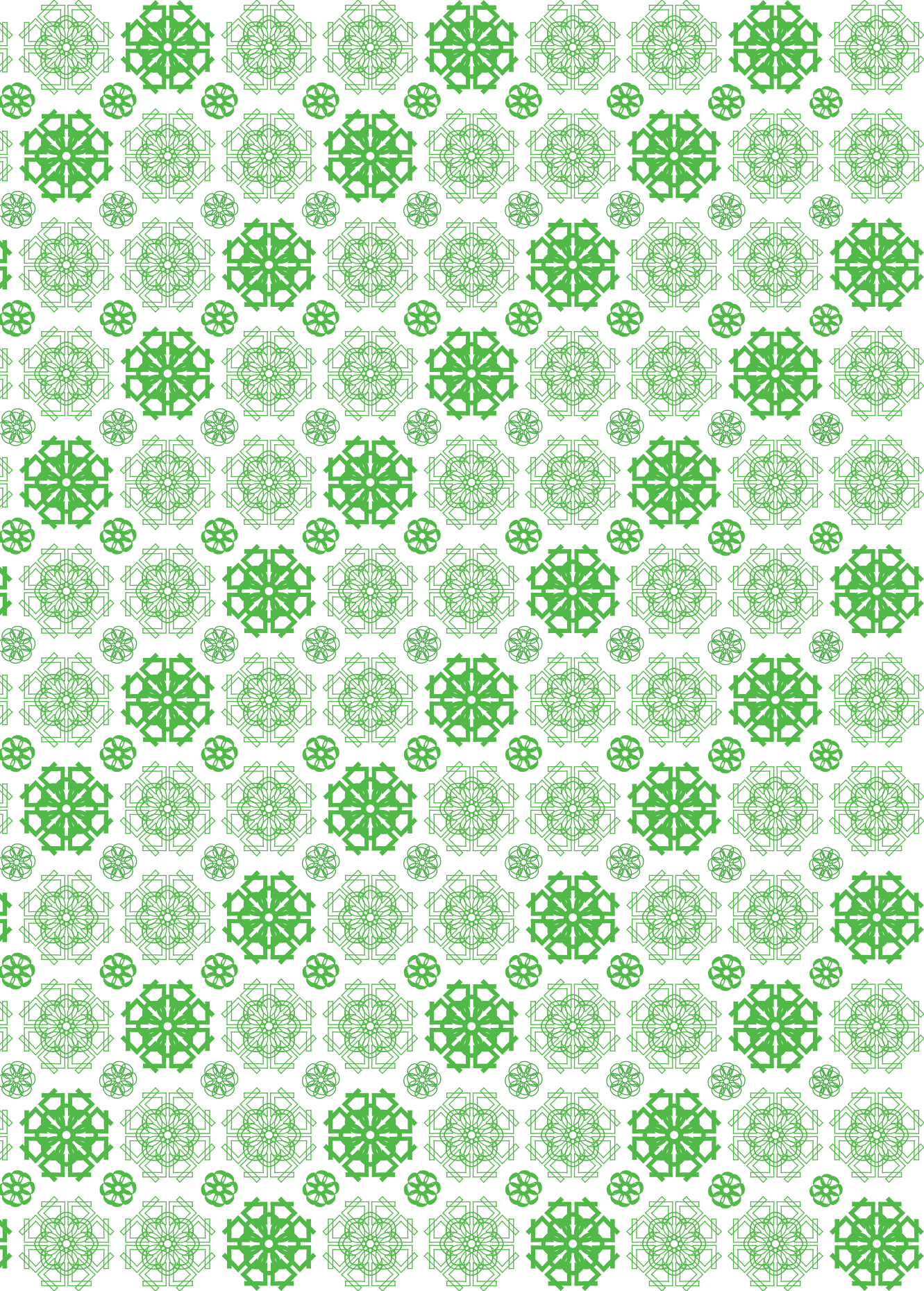
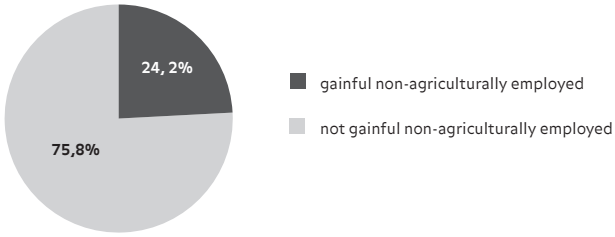


Figure 5.1 Women's overall gainful non-agricultural employment in 28 Muslim countries



49 This number is based on the total number of working-aged women (Appendix 4.1), from which I subtracted the percentage of women in the surveys that was disabled or still in school (Table 4.1). This left 91% of 327 million, making about 298 million. The mentioned 72 million is 24.2% of that number.

Chapter 5

Descriptive analysis
Women's employment in 28 Muslim countries

5.1 DESCRIBING WOMEN'S EMPLOYMENT IN MUSLIM COUNTRIES

The empirical literature on women's employment in Muslim countries is not abundant and as has been argued in the previous chapters, the overall picture is patchy at best. The two archetypical conclusions that are derived from the existing empirical studies are either that women's employment in Muslim countries is low or that employment rates differ considerably within countries. Presented as a juxtaposition in the debate on women's employment, these conclusions do not necessarily contradict each other empirically: there can be both major differences among and within countries, as well as an overall relatively low level of employment. The extent to which both claims hold true can only be assessed if data allow both comparisons across many countries and comparisons within them. In this chapter, both types of descriptive statistics will be presented for 28 countries.

This chapter is organised in two major sections. In Section 5.2, women's gainful non-agricultural employment rates and variations are presented for various geographical units ('the Muslim world', regions, countries, districts). In Section 5.3, women's employment is presented in relation to 'non-geographic' characteristics of women or their context, such as educational level and economic development. Though much information can be derived from these figures, in the text I will only highlight some of the most notable results regarding the debates touched upon in this thesis. Unless stated otherwise the 'data' refer to the whole sample as discussed in Chapter 4. Where in this chapter the term 'women's employment' is used, it refers to women's gainful non-agricultural employment as described in Chapters 2 and 4, unless stated otherwise.

The figures presented here contribute in at least three ways to the overall goals of this thesis. Firstly, the proportion of women who are employed in the different areas partly provide an answer to the first general research question as formulated in Chapter 1: What is the degree of women's employment in Muslim countries and how does it differ among and within countries and over time? Secondly, to explain women's employment, knowing the (variation in the) level of women's employment is a necessary condition. This chapter reports on that matter. Thirdly, discussing the additional characteristics of the women who are employed and of those who are not expands our knowledge from knowing where women are employed to who these employed women are.

5.2 A GEOGRAPHY OF WOMEN'S EMPLOYMENT

Below is a presentation of women's employment, and the variation therein, for all countries together, for the 28 countries separately and for the 383 districts. The figures are based on the weighted data as discussed in Chapter 4. Still, comparisons between countries and districts warrant some caution, as the surveys date from different years. Except two (Kyrgyz Republic: 1997; Kazakhstan: 1999), all surveys are held in 2000 or later.

5.2.1 'THE MUSLIM WORLD'

Overall, about 1 in 4 women living in the 28 Muslim countries studied here is gainfully employed outside the world of agriculture (see Figure 5.1). This indicates that a substantial majority of the women in these countries has no individually earned income, with all the consequences that implies for both the position and empowerment of women, as well as the economic potential of these countries. At the same time, this – based on extrapolation – means that roughly speaking 72 million working aged women are gainfully employed in these countries.[49]

Figure 5.2a Women's gainful non-agricultural employment per country

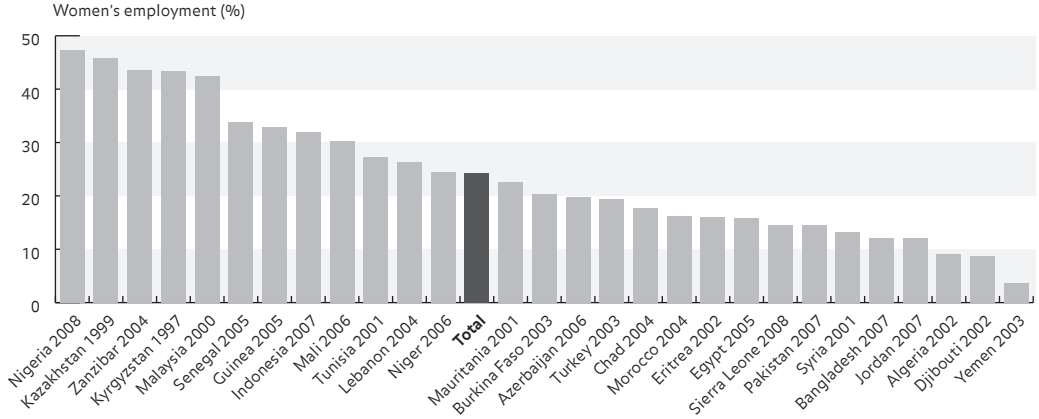


Figure 5.2b Women's gainful non-agricultural employment per country

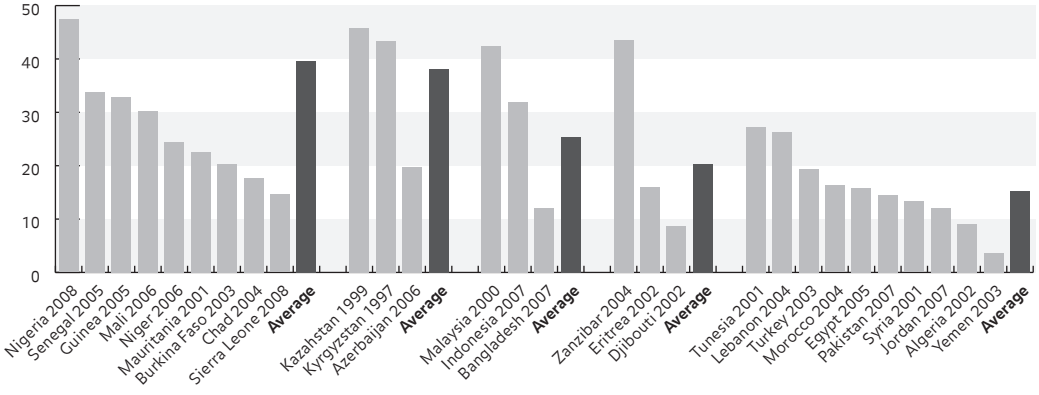
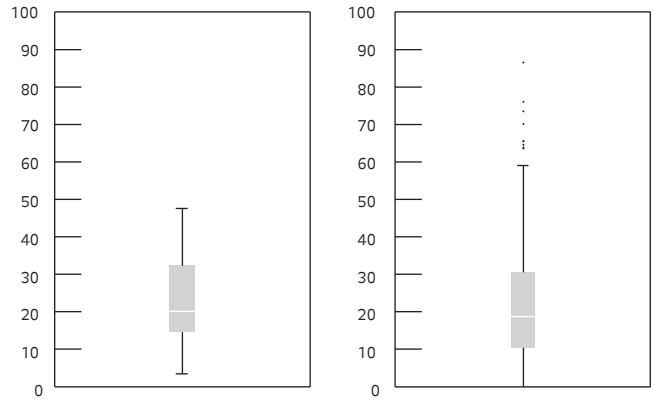


Figure 5.3 The variation in women's gainful non-agricultural employment



A Spread based on countries' women's employment levels

B Spread based on districts' women's employment levels

5.2.2 28 MUSLIM COUNTRIES

Dissecting the overall figure of 24.2% by country shows that women's employment varies from 3.6% in Yemen to 47.4% in Nigeria (see Figure 5.2a), and those two countries are no outliers (see Figure 5.2a and Figure 5.3a). Of 28 countries, the MENA countries are clearly overrepresented among the ones with the lowest women's employment levels: six of the seven countries with an employment level below 16% are from the MENA (or Greater Middle East). Of these, Yemen – one of the poorest countries in this study – stands out.

At the other end of the distribution spectrum, five countries seem to form a distinct group in terms of high women's employment levels: in Kazakhstan (1999), the Kyrgyz Republic (1997), Malaysia (2000), Nigeria (2008) and Zanzibar (2004) between 40% and 50% of women is gainfully employment outside agriculture. Regarding these five countries, four things should be noted. Firstly, they represent four different geographical regions, which makes the 'top of the list' more geographical diverse than the bottom. Secondly, among these five countries, the three with the oldest surveys are included. From external figures of the developments of the size of the female labour force over time (ILO Laborsta)[50] and the population growth/decline (CIA World Factbook), it can be derived that women's employment in Kazakhstan has increased considerably since 1999, while that of Kyrgyzstan has levelled or even declined after 1997.[51] Consequently the ranking amongst these five should be treated with caution.

Thirdly, these countries not only stand out in terms of women's employment, but for each the 'extreme' position among the total population of countries (see Gerring [2007] on extreme cases) is accompanied by another extreme position: Nigeria is the only country with a large petrol-economy; Malaysia is the only country that is designated as a newly industrialising country or economy in the economic literature (e.g. Assaad, 2003; Muscatelli, Stevenson & Montagna, 1995; Prajogo, Laosirihongthong, Sohal & Boon-itt, 2007); Kazakhstan and the Kyrgyz Republic are the only two countries included here in which the Soviet Union's projects and campaigns were prominent; and of the Sub-Saharan and East African countries, Zanzibar has by far the largest tourism inflow in terms of tourists per inhabitant (WDI). Fourthly, since these five have the highest women's employment of the countries studied, this means that in none of the 28 countries half or more of the women is gainfully non-agriculturally employed.

Zooming in on the geographical clustering in Figure 5.2 shows that the average women's employment is highest in Sub-Saharan African (for a large part due to Nigeria's level of women's employment and its large population) and Central Asia, and lowest in the MENA. However, the variation within the regions is substantial as well. Within each country, the difference in women's employment between the district with the highest and lowest employment is at least 23.7 percentage points or a factor of 2.3.

5.2.3 383 DISTRICTS

Comparing the variation between districts to the variation among countries (Figure 5.3), we see – not surprisingly – that the variation among the 383 districts is considerably higher. Most of this 'additional' variation is found in the 'whiskers' of the boxplot: the quartiles containing the districts with the highest and lowest levels of women's employment. The two middle quartiles still occupy about the same area: between 10% and 30% of the women being employed. Moreover, when studying the districts the ten districts with an employment rate above 60% can be considered to be outliers. Figure 5.4 further illustrates the district-level variation: one third of the districts is found in the two largest 5% groups: between 5% and 15%. In comparison, the highest third is found from 25% (to 100%), indicating that the spread is clearly skewed right or positive (the mean of women's employment is higher than the median). Women's employment is lowest in the Yemeni Al Maharah governorate where no women are gainfully employed outside agriculture, and it is highest in Nigeria's Osun in which women's employment level is over 85% (see Appendix 5.1). Osun is one of the ten outliers (see Figure 5.3b), seven of which are Nigerian districts, one is Kyrgyz, one Kazakh and one Burkinabe.

As can be derived from the list of women's employment levels in each district (Appendix 5.1), the districts show clustering by country, as well as variation within countries. For instance, we find over half of the Nigerian districts and 40% of the Malaysian districts among the top

Figure 5.4 The distribution of women's gainful non-agricultural employment in 383 districts

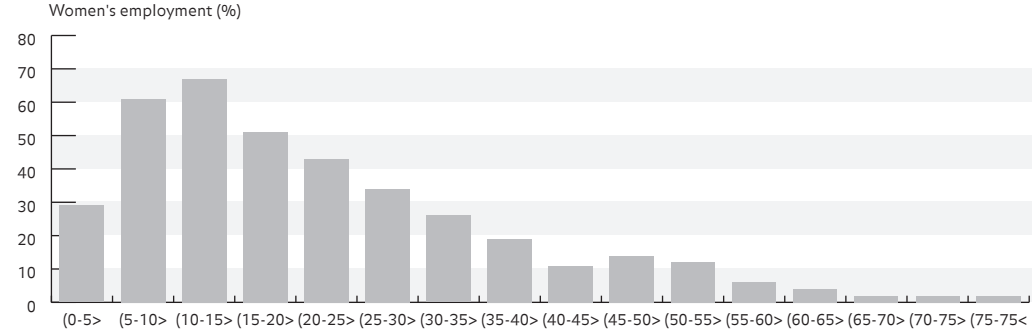


Figure 5.5 The highest and lowest women's employment levels dor districts in each of the 28 Muslim countries

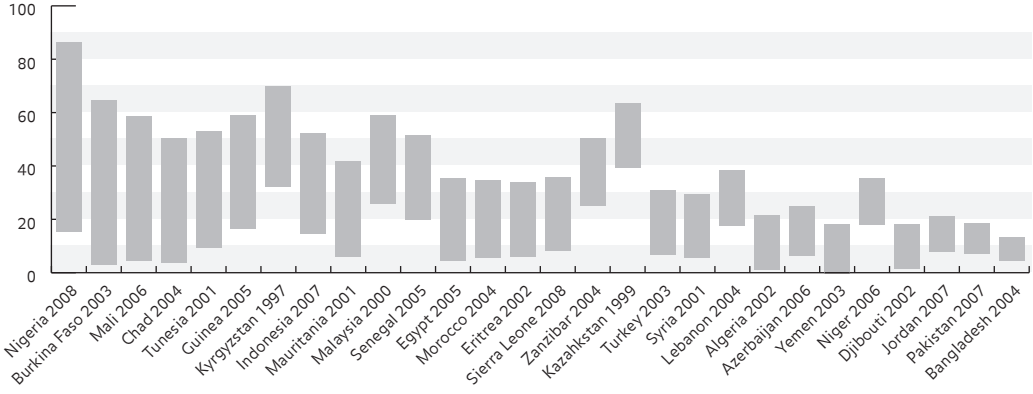


Table 5.1 Variation in women's employment by level

Level	Variation	s.e.	Share total variation	
Country	1.05 ***	0.32	14%	23%
District	0.66 ***	0.05	9%	
Household	2.62 ***	0.06	34%	77%
Individual1	3.29		43%	

* p<0.05 ** p<0.01 *** p<0.001; All cases with a value on the dependent variable are included: N_i=316,885; N_h=242,410; N_d=383; N_c=28; Notes: (1) In logistic models, the variation at the lowest level is not estimated; 3.29 (π2/3) can be taken to partition the variation across levels (CMM, 2011).

50 ["Employment" >> "Main statistics (annual): employment general level, by economic activity, by occupation, by status in employment – paid employment by economic activity, in manufacturing" >> "Paid employment, by economic activity"]

51 For Kazakhstan, 2001 and 2008 are compared, showing an increase in women's paid employment outside agriculture of about 14 percentage points. Over the same years, the increase is between 1 and 2 percentage points for Malaysia. For the Kyrgyz Republic, 1999 and 2007 are compared, women's paid employment outside agriculture there decreased by 4 percentage points.

52 In these kinds of models it cannot be tested whether the individual-level variation is significant.

10% of districts. At the same time, this top 10% also hosts districts from countries that 'rank' lower on the country list (see Figure 5.2a), such as Senegal (rank 6), Guinea (7), Indonesia (8), Mali (9), Tunisia (10), Burkina Faso (14) and Chad (17). At the bottom of the district list, we find almost one third of the Algerian districts among the 10% of districts with the lowest women's employment. 80% of the Yemeni districts are also part of this 10%. Surprisingly, we can also find districts from Burkina Faso, Chad and Mali among the lowest 10%. The spread within these three countries turns out to be quite high. A more systematic assessment of this spread can be found in Figure 5.5, which depicts the difference between the lowest and highest district per country. Most countries show a considerable difference of around 25 to 30 percentage points. But others, such as Bangladesh, Jordan and Pakistan have considerably lower variations. For Bangladesh and Pakistan this might partly be due to there being fewer districts in these countries. It should also be noted that the districts with the highest women's employment in a country are often the capitals of these countries.

5.2.4 GEOGRAPHIC PATTERNS AND EXPLAINING WOMEN'S EMPLOYMENT

The above-discussed figures have shown that several geographical patterns can be discerned regarding women's gainful non-agricultural employment in these 28 Muslim countries.

1. All countries have regions with relatively low employment figures (the 'highest low' is found in Kazakhstan: 39.4%).
2. The 28 countries to some extent cluster in geographical subregions (for Central Asia, the MENA and Southeast Asia this is most clear).
3. Districts from one and the same country cluster together, indicating country-level effects.
4. In each geographical region there is considerable variation between countries, and in each country there is also considerable variation between districts.
5. The variation of women's employment among district differs considerably between countries.

Summarising, I would say that similarities and differences are both present, and one does not overshadow the other.

Consequently, it can be concluded that explanations for the level of women's employment in regions, countries and districts are to be sought both in factors that are tied to women's geographical location (e.g. economic development and the presence of a certain religion) and in factors that are more related to the individual and household (e.g. such as household configuration and education). Moreover, explanations seem to be needed at each of the different levels: country, district and intra-districts. A four-level null model (see Table 5.1 – a null model is a model without explanatory factors but that includes the dependent variable and the level identifiers) also shows that the variation at each context level is (statistically) significant.[52] Furthermore, it shows how much variation is found at each level (uncontrolled for any explanation). About three quarters is found at the micro-level and a quarter can be explained by differences between countries and districts. In the next section, several substantial factors at these levels are related to the variations found. In the explanatory chapters, the multilevel models will help explain some of the variation discussed here.

5.3 LOOK WHO'S WORKING

Below, women's employment will be presented in relation to several other characteristics of women and their households, and of the district or country context. These statistics give an impression who are employed, and in what kind of environment these women live. The highlighted characteristics are a selection of the ones discussed in Chapter 3, the most prominent ones in the literature.

5.3.1 EMPLOYMENT WITHIN AND AMONG HOUSEHOLDS

At the individual and household levels, there is a great deal of variation, with clear patterns, when women's employment is calculated by age, marital status, having children, education and living in a city. The figures presented here are raw figures, not taking into account differences between countries and districts. They simply show the general patterns in the sample as a whole.

Figure 5.6 Women's gainful non-agricultural employment in 28 Muslim countries by age

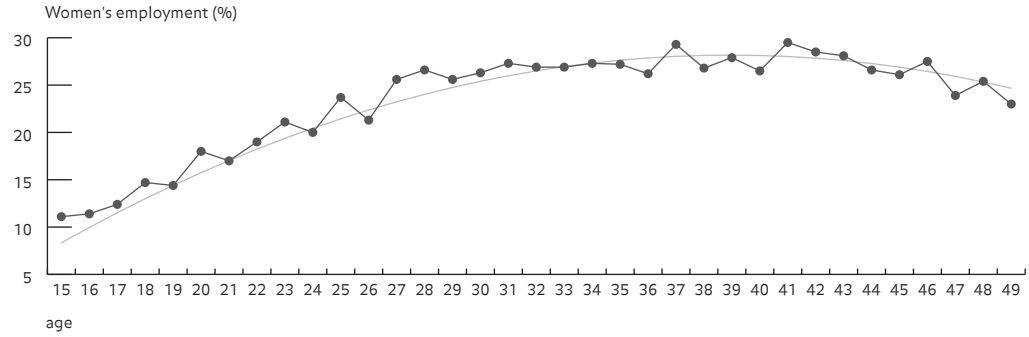


Figure 5.7 Women's gainful non-agricultural employment in 28 Muslim countries by age

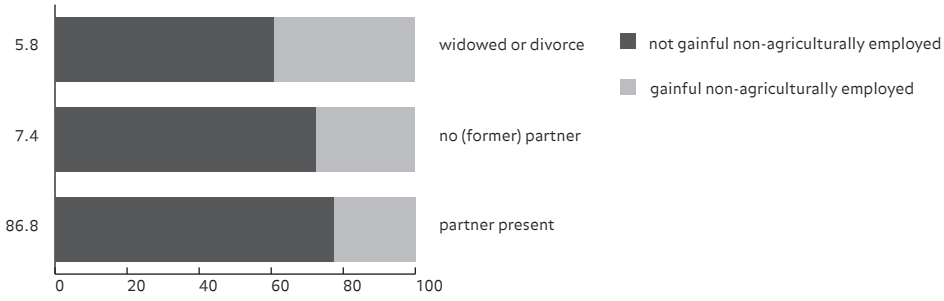
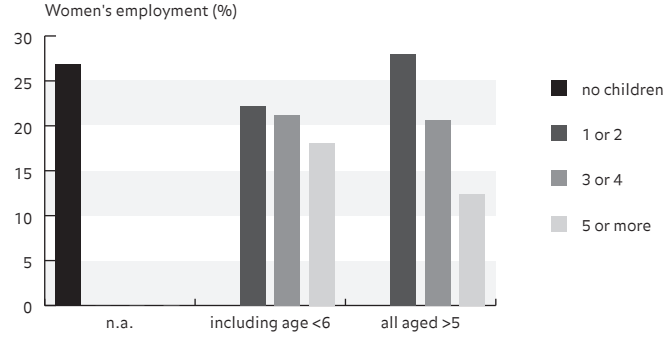


Figure 5.8 Women's gainful non-agricultural employment in 28 Muslim countries by number and age of children



53 Or between the ages of 45 and 49, which can only be detected if figures for the age over 49 are included.

54 As discussed in Section 4.2.1, women who are still in school are excluded from this study.

As Figure 5.6 shows, women's employment is related to age in the shape of an inverted U-curve. The likelihood to be employed starts around 11% and rises from the age of 15 up till about the age of 30, when women's employment likelihood is between 25–30%. Then it is rather constant or rises only slightly for another 10 to 15 years. Beyond that age, women's employment likelihood clearly declines again. Of course, this trajectory is not the same in all 28 countries, but for 22 countries a similar polynom is found with a peak between the ages of 30 and 45 in 19 of these countries. In three countries (Azerbaijan, Mali and Nigeria) the slope seems constantly positive. This does not exclude the possibility of a peak, but in those cases it occurs after the age of 49.[53] In only three countries (Eritrea, Guinea and Sierra Leone) the pattern might suggest an M-curve. Empirical research on Western countries also suggests one peak just after finishing education and then a drop after marriage and childbirth, sometimes with a second peak at the age the children have grown older (e.g. Waite, 1980). Overall, for the 28 Muslim countries, the overall course of employment over life does not resemble this M-curve. An earlier age of (first) marriage (18 years and 2 months in this sample) and first childbirth (20 years and 1 months) might explain the general absence of a decline between two peaks.

The relationship between women's employment on the one hand, and marriage and having children on the other, is illustrated in Figure 5.7 and Figure 5.8 respectively. Women who are widowed or divorced are almost twice as often employed than women with a partner; however, the former group only accounts for less than 6% of all women. Women who have never been married (about 7%) fall in between the two, which is not surprising since these figures are not controlled for age; this group contains many of the younger women, who have lower employment likelihoods than the older (widowed and divorced women). These numbers indicate that women without partner are more often employed, especially widowed and divorced women.

Looking at women's employment from the perspective of having children also lays bare interesting patterns (Figure 5.8). First of all, women without children and women who have only one or two children, over 5, have the highest likelihood to of employment. Notable is that the average age among that first group is 31.6 and for the second group 38.4. Secondly, for both women without younger children and women with young children, we see a trend that women's employment declines the higher the number of children present. Thirdly, the declining trend is much steeper for women with only children over 5. Surprisingly, of the women with five or more children, the women with older children are less likely to be employed than the women with younger children. The absence of controls for age and traditional values can be crucial in understanding this: only 0.3% of the women has five or more children all above the age of 5, and the average age of these women is 38.8. These women might be the most traditional of all groups: they are from an older generation and have many children.

A focus on education reveals the strong association of women's employment with education as well as the importance of educational levels in these countries for understanding the level of women's employment.[54] In Figure 5.9, we see that the likelihood of being employed is higher if the educational level is higher. At the same time, the number of women declines at an even steeper rate as the education level increases. Consequently, as the shortest bars in the figure reveal, women's employment chances might be higher for those higher educated, but still most gainfully non-agriculturally employed women have completed no education.

Lastly, I have distinguished between women living in rural and urban areas (see Figure 5.10). For every three women living in a rural area, about two live in a city. Of the latter, about one in three is gainfully employed outside agriculture. In rural areas, this number is about half that: one in six.

Overall, it seems that tertiary-educated women without children who are widowed or divorced, around the age of 30–45 and living in a city have the highest likelihood to be employed. Indeed, more than 75% of the women of this group is gainfully employed outside agriculture. At the other extreme, the 'low potentials' – women aged 15–25, living in rural areas, without education, with more than four children and having a partner – only have an employment likelihood of 12.6%. However, both groups are extremes, they each just account for 0.1% of the women in the sample. Only focussing on extremes is not the only misleading strategy: paying the most attention to the groups of women with the highest employment rates tends to ignore

Figure 5.9 Women's gainful non-agricultural employment and education in 28 Muslim countries

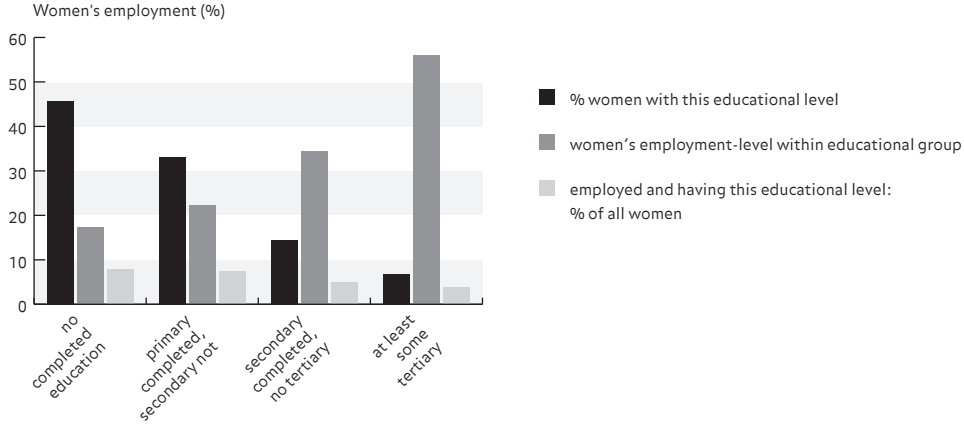


Figure 5.10 Women's employment by living in a city

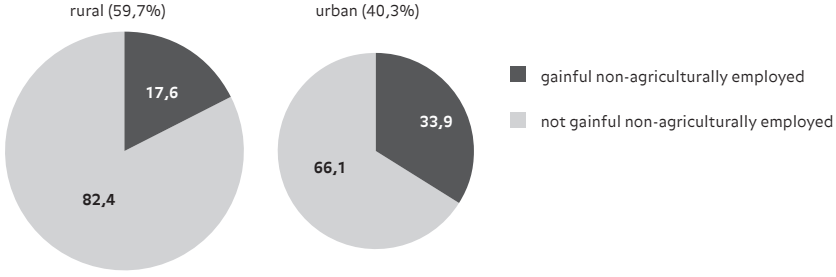
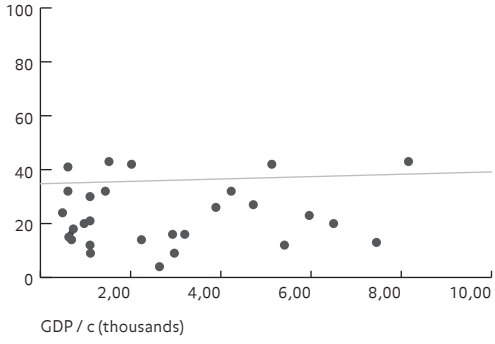


Figure 5.11 Women's employment and country-level economic development



55 This is done by running a standard OLS regression model in SPSS on the sample of districts with women's employment as the dependent variable and district wealth as the independent variable, including dummies for 27 (of the 28) countries. The partial plot of the wealth-employment relationship shows how these two are related after controlling for country-level differences. That graph is used here.

56 This does not mean that the same holds for the entire population of Muslim countries, as some of the most Islamised countries are not part of the sample (e.g. Iran and Saudi Arabia). Still, it can be said that of the whole population of 52 countries, at least 13 countries (25%) are not Islamised (at least measured on their constitutions).

that these groups are often relatively small, as was shown for tertiary-educated women (7%), widowed and divorced women (6%) and women without children (25%). A focus on these women might well mean that in absolute terms most employed women are actually ignored, as was shown above in the case of education.

5.3.2 EMPLOYMENT AND THE DISTRICT AND COUNTRY CONTEXT

The variation in women's employment level among the 383 districts and the 28 countries is probably related to specific characteristics of these areas. In this section, I relate a selection of variables to women's employment levels: economic development and cultural or value-based factors. These were chosen because they figure most prominently in the literature. Relating the employment rates of women to these factors gives a first indication of how they relate to women's employment.

Economic development at first glance shows hardly any relationship. The country-level scatter plot of GDP per capita with women's employment does not show any relationship (Figure 5.11), and a bar chart of women's employment for each wealth decile at the district level (Figure 5.12) does not present a clear relationship either. Does this mean there is no relationship between economic development and women's employment, while it is one of the most robust ones in the literature? To draw such conclusions other factors have to be taken into account, as I will do in the next chapter. However, only for economic development, I will make one first step in that direction here, in order to understand the role of economic development a bit better. Since the districts can be expected to be clustered by country, it is interesting to focus on the differences within countries, by filtering out the country differences. That is why I have graphed the relationship of district-level wealth with women's employment controlling for country-level differences.[55] Figure 5.13 shows this 'corrected' relationship between economic development and women's employment at the district level. Whereas the coefficients along the axis are not the most insightful given the procedure followed, the distribution of districts indicates that in the richer districts women's employment is generally speaking considerably higher than in the poorer districts. The graph, however, collapses the possible different effects of economic development (see Section 3.3). A multiple regression model (see next chapter) is needed to distinguish those. The use of multilevel regression seems legitimised by the results presented here as well: a possible effect at the district level only turns up once country-level clustering is taken into account.

With regard to cultural values and women's employment, the focus in existing literature is most often on Islam. Here, I graphed the relationship between state Islamisation and women's employment, as well as norms on the public presence of women and women's employment. The first represents the institutionalisation of Islam, also focused upon in Chapter 6 and Chapter 9. The second graphs the underlying norms often discussed as part of the causal mechanism when Islam is brought to the fore.

In Figure 5.14 the country-level variation in women's employment (see also Figure 5.2) is related to state Islamisation. The association between state Islamisation and women's employment is negative. Besides a seemingly declining trend, two other things can be derived from these data on the 28 countries. Firstly, most Muslim countries studied here are not (strongly) Islamised in terms of their state structure: 13 of 28 score 0 points on the scale and only 5 score 4 points or higher (out of 6).[56] Secondly, the spread in women's employment seems to be higher among the countries with lower scores on state Islamisation. If I was discussing this in terms of causality, this might indicate that state Islamisation in itself is sufficient for a low employment of women, but certainly not necessary; there are other explanations for having low employment levels (on sufficient and necessary conditions, see for instance Goertz, 2006; Ragin, 2008).[57]

Also at the district level, value patterns taking shape in societal norms seem to be related to women's employment. In districts where the norm on the presence of women in the public sphere is less restrictive, women's gainful non-agricultural employment is on average higher (see Figure 5.15). However, with an R-square of 0.143 and a rather flat line, the relationship seems not to be that strong. Inspecting the plot, though, shows that a cluster of districts in the lower

Figure 5.12 Women's employment and district-level economic development

Figure 5.13 Women's employment by district wealth level

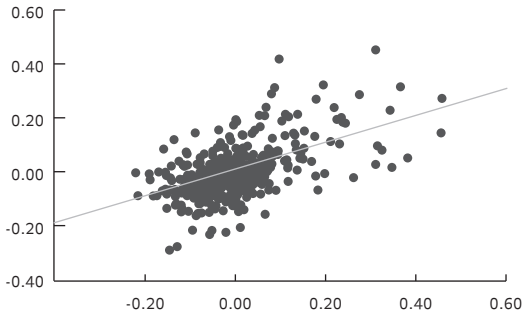
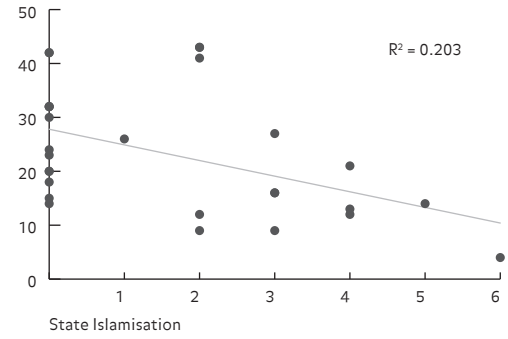


Figure 5.14 Womens' gainful non-agricultural employment and State Islamisation



57 This relationship is not necessarily only present for Islam. However, in none of the countries another religion than Islam is institutionalised in the state (see Spierings, Smits & Verloo, 2009). This makes it impossible to check whether the (causal) effect is only found for Islam or also for the institutionalisation of conservative strands of other religions.

right corner heavily influences this relationship (see the rectangles and squares in Panel A). These fifteen districts are all nine Azerbaijani (squares) and six Bangladeshi provinces (diamonds). It seems that in Azerbaijan and Bangladesh the norm is in favour of women's public presence, but women's employment is relatively low. This could be due to a heretofore-unaccounted factor. When these districts are temporarily excluded from the sample, the R-square of the relationship increases to 0.245 and the slope is much steeper (Panel B).

Overall, women's gainful non-agricultural employment levels in the Muslim countries and their districts do seem to be associated with other characteristics of these areas. This is not surprising, but showing some of these patterns does contextualise the analyses in the upcoming chapters. Furthermore, the characteristics to which women's employment is related overlap with each other as well. It might be that the districts with more women friendly norms are mostly found in the non-Islamised states. Economic development might show a much stronger pattern when individual-level economic needs are filtered out, and controlling for other district characteristics such as labour market structures is expected to decrease the association between women's employment and public presence norms. For now, it seems that in regions with a moderate level of economic development that have little institutionalised religion and in which gender parity in the public sphere is higher, more women are gainfully employed outside agriculture than other in areas.

5.3.3 NEEDS, OPPORTUNITIES, VALUES AND EXPLAINING WOMEN'S EMPLOYMENT

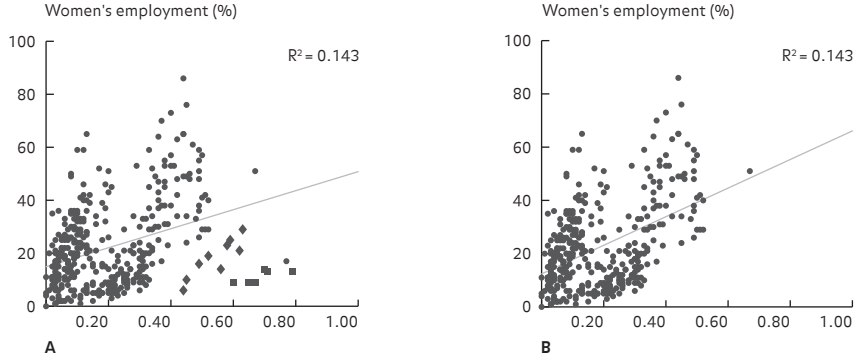
The substantial characteristics of women, their households, districts and countries, which were linked in Section 5.3 to women's employment, are all derived from the theoretical framework discussed in Chapter 2 and Chapter 3. The bivariate associations presented here have provided some information about which women are (mostly) employed. The first important conclusion to be drawn from this is that in terms of focus, a distinction can made between 'the category in which women's employment is highest' and 'the category that supplies the most female labour for employment'. The former is a relative measure drawing attention to chances for individual women given their characteristics and those of their environment. The latter is an absolute measure that tells us something about the make up of the labour market. This distinction is best illustrated by education: though clearly many more women of the women with tertiary education are employed than of the women without any education, more employed women had no education than tertiary education.

The second conclusion is that on several occasions the figures showed 'surprising' results (e.g. for having children or district-level economic development). In each of these cases it seems that other, unaccounted-for characteristics at least partly explain the 'surprise'. In these two cases, there was an obvious solution, but it generally means that neglecting to control for confounding factors can seriously distort the results. In this chapter, I have portrayed what is seen at the surface; in the next chapters the focus will shift to understanding and disentangling causal mechanisms lying beneath the surface.

5.4 CONCLUSION: PATTERNS OF DIVERSITY

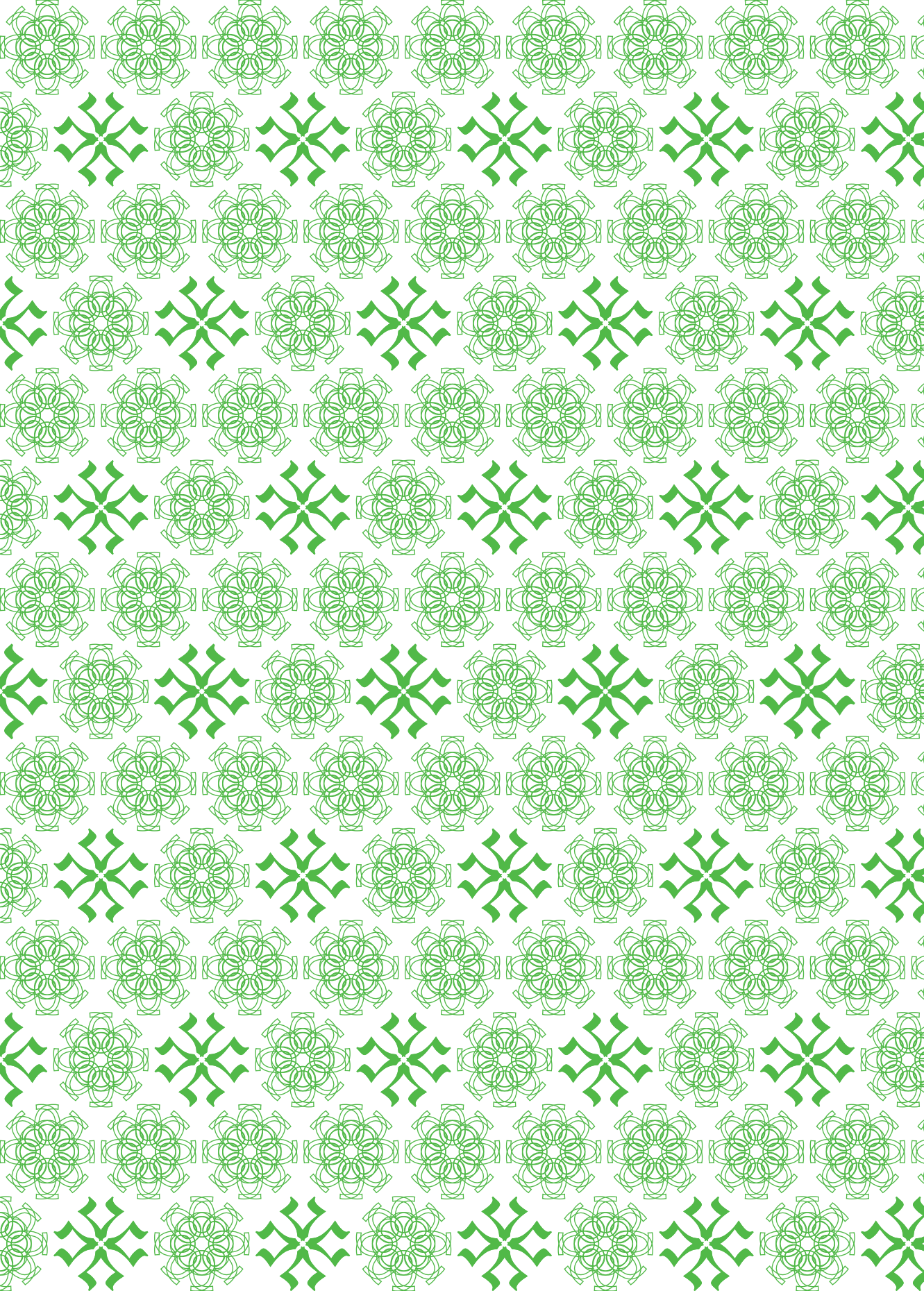
"What is the degree of women's employment in Muslim countries?" 24.2% is the answer for the 28 selected countries, sampled between the end of the 1990s into 2008. As simple as this answer sounds, the figure can be highly misleading. It should at least be accompanied by the answer to the second part of the question: "How does it differ among and within countries?" In some countries it is twice as high, in others many times lower and for individual districts the extremes are even further apart. This supports a general common place: "There is much diversity in the 28 Muslim countries." However, it is questionable whether these kinds of remarks are much help in understanding women's employment in Muslim countries. Yes – assuming that the women considered to be employed here are the most economically independent women in these countries – it is also true that in each country the economic independence of at least half of the women can be much improved, the half not being gainfully employed. Yes, it is true that there is a great degree of diversity. But what does this mean in terms of explanations?

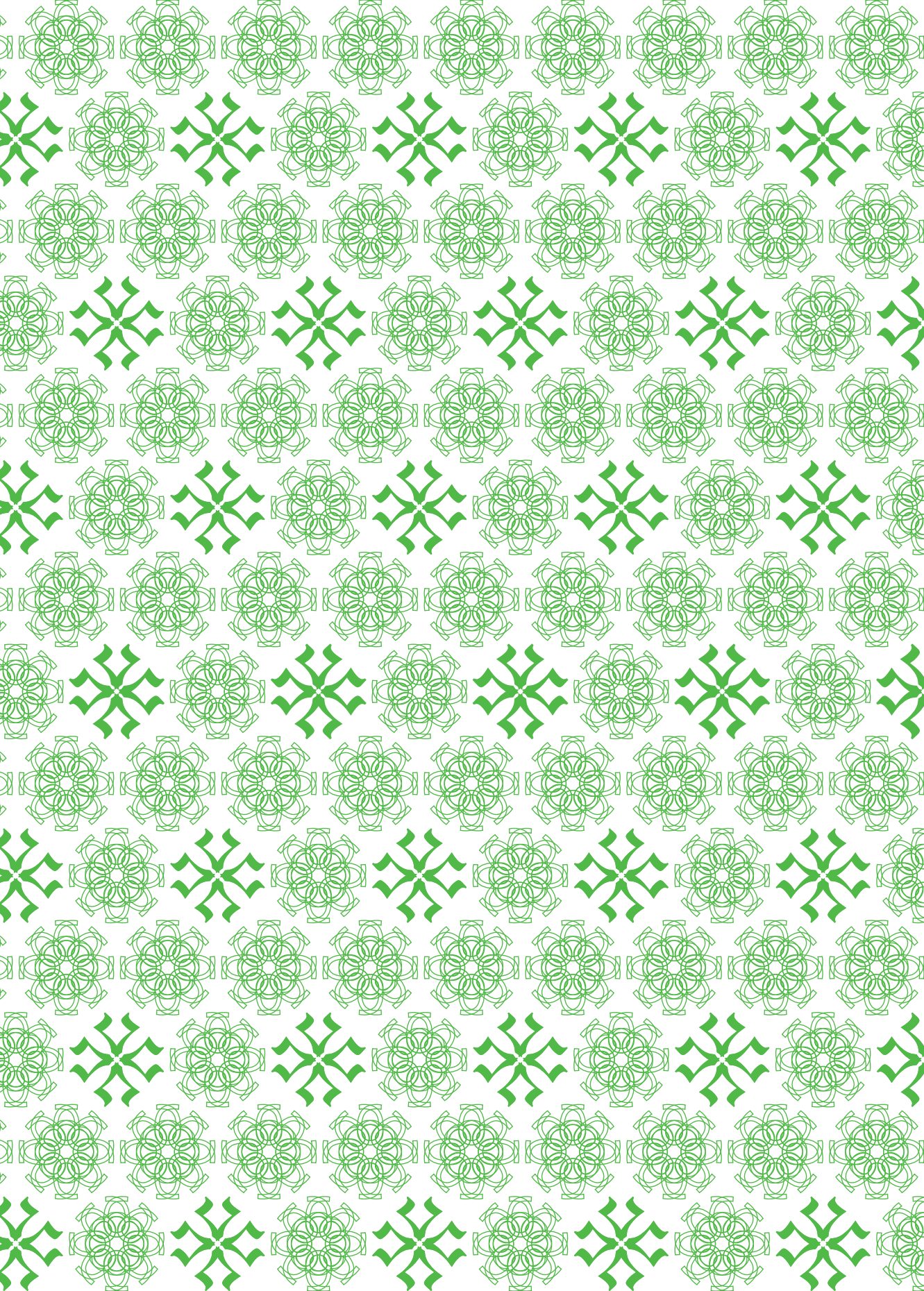
Figure 5.15 The relationship between norms on public presence ans women's employment



This chapter has shown that the variation and similarities in women's gainful non-agricultural employment can be understood in patterns of diversity instead of erratic variation. Both in geographic and substantial terms, it is clear that the variation in women's employment is linked to other phenomena. While that is unsurprising, it might be surprising that the variation geographically clusters around subregions – such as the MENA – and also varies greatly within these regions. Also the sub-national district cluster by country, and show considerable variation within the district too. Together with the association of women's employment with the substantial characteristics, this highlights that many different factors correlate with employment. Some of these are linked to the geographical area a woman lives in, but many are not. Furthermore, these descriptive results seem to underscore the statement that women's employment is part of a complex reality, in which many influential factors at different levels are interrelated. Understanding the units of analysis (women, districts, countries and so on) in terms of their being part of a larger population helps to understand the phenomena which might influence women's employment, and can suggest new explanations for women's employment, as was shown when discussing the five countries with the highest level of women's employment in Section 5.2.2.

Understanding women's gainful non-agricultural employment means we have to go beyond treating 'the Muslim world' as one homogeneous unit, as well as to try to understand the similarities between women, household, districts and countries. By focussing on 28 Muslim countries – without comparing them to for instance 'the West' – and on the patterns of diversity within and between these countries, this chapter has provided a view on the economic position of women in this part of the world. Many different types of graphs and statistics are presented here, and depending on our position we are liable to choose an interpretation in line with our own mindset. Are 'most highly-educated women employed' or 'most employed women hardly educated'? It only seems a matter of words, and both statements are true, but their impact is easily politicised and has an influence beyond the simple descriptive function they have in a chapter like this one. To make more accurate claims about what influences women's employment, the next five chapters will use multivariate analyses to asses the associations shown in this chapter as well as others. In Chapters 8, 9 and 10, also additional descriptives will be presented regarding patriarchy, religion and longitudinal variation.





58 The smaller the Deviation Information Criterion diagnostic, the better the model fit (it takes the degrees of freedom used into account).

Chapter 6

Explanatory analysis
General influences on women's employment in 28 countries

6.1 INTRODUCING AN EXPLANATORY ANALYSIS

Chapter 5 has shown how different characteristics of women and their environment relate to the likelihood that a woman is gainfully and non-agriculturally employed. While these descriptives give a good view of just who is employed, they ignore to what extent the different characteristics are interrelated and hence they do not show which factor is more and which is less important. That is where this chapter comes in.

Starting from multilevel models using one explanatory factor at a time (Table 6.1) and then advancing towards a model including all relevant micro-, district- and country-level factors (Table 6.2), this chapter tests if and to what extent these factors may have an independent effect on women's employment. In the cases of the district- and country-level factors, I will also assess in what way. I will stick to Chapter 3's clustering of hypotheses under five headings: (1) income and care needs; (2) labour demand creating opportunities; (3) demand and supply: suitable and accessible jobs; (4) societal and institutionalised norms; and (5) the government shaping opportunities and needs. First though, Section 6.2 starts with a few general remarks about my analyses and interpretation of the models. In the last two sections of this chapter (Sections 6.8 and 6.9), I will pay attention to the most notable results, and reflect on their overarching implications. Those sections also discuss the way this chapter is like the heart of a flower to which the following thematic chapters are attached like petals. Those chapters will focus on the contextual dependence of effects (Chapter 7), the inclusion of new variables (Chapter 8), the assessment of controversial variables (Chapter 9), and the temporal dependence of effects (Chapter 10).

6.2 INTERPRETING THE RESULTS

6.2.1 INTERPRETING THE MODELS

Before turning to the substantial results, some general and technical remarks are helpful to understand the guidelines I have used in interpreting the results. The discussion of the results in this chapter is mainly based on the estimations in the full multivariate model (Model 4, Table 6.2). However, when the coefficients in the other models are substantially different, they are given more attention because this sheds more light on the mechanisms at work. To understand which variables could be responsible for the changes in coefficients, additional models were run. The results of those additional tests are discussed in the text, and the most relevant coefficients are presented in accompanying illustrations.

As discussed in Chapter 4, MCMC estimation gives the most accurate results for logistic multilevel models in MLwiN. The models presented here start from weighted IGLS models, but the weighing procedure in MCMC is not optimal. To test the sensitivity of the results, Appendix 6.1 also presents the weighted IGLS model and a weighted fixed effects model. I will refer to these in the text below if the results of these estimation techniques lead to considerably different conclusions (see also Section 6.8).

Lastly, though this thesis is mostly interested in the relationship between the explanatory variables and women's employment, I will also report – but hardly discuss – the models' DIC diagnostics, which is an indicator of the variance not explained. A decline indicates thus a better model.[58] These figures, for instance, show that the model with all variables (Model 4 in Table 6.2)

Box 6.1

3.1 If a male breadwinner is present, the probability a woman is gainfully non-agriculturally employed is smaller than if no male

✓ breadwinner is present.

3.2 To the extent that the number of (young) children increases, the smaller the probability of being gainfully non-agriculturally

✓ employed of a woman.

Legend

This holds for all further use of these symbols

✓ Expectation holds

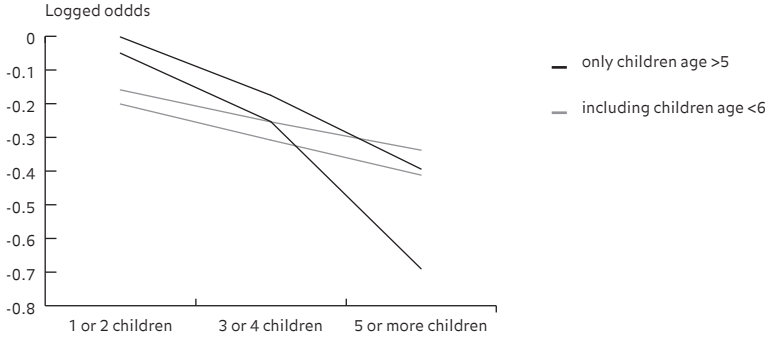
x Expectation doens not hold

? The results are inconclusive

? ✓ The results are inconclusive, but tend to support the expectation

? x The results are inconclusive, but tend not to support the expectation

Figure 6.1 95% confidence intervals of effect of number of children (compared to having no children) on women's employment



59 When I do not go into detail about the level of statistical significance, this means that the coefficient differs significantly from 0 at the conventional level. For the N of the individual and household level that is 0.1%, for the lower N at the district and country level, a less strict criterion will be used.

60 It seems surprising that women with 5 or more older children are less often employed than women with the same number including young children. As Figure 6.1 – in which the 95% confidence intervals are drawn – shows there is no statistically significant difference.

61 It should be noted, however, that the exact impact of having children might be overestimated, because women who want to work can also be expected to choose to have fewer children. On the other hand, if women have fewer children because they want to work, that implicitly supports the theoretical reasoning here. If we understand the counterfactual dimension of causality (e.g. Brady, 2008, 220–1), then the absence of the cause must lead to the absence of the effect. If these women would have had children, they would not have worked, because they have had children. That is why they decided not to have children. Two alternative futures exist for these women and it depends on having children which one will become reality. It is not working as such that changes their decision on the number of children; it is the expected effect of having children on employment that determines how many children they want. This issue of endogeneity is discussed in the concluding chapter of this thesis as well.

62 In a MCMC model with 5,000 iterations and explanatory factors at all four levels, deleting country-level variables backwardly, GDP/c turns out to have a negative significant effect. However, the estimation trajectory history shows large differences and after running MCMC models with more iterations, the variable does not show a significant effect (see also in Table 6.2).

explains most of the variation in women's employment in these 28 countries, has the best model fit.

6.2.2 INTERPRETING THE COEFFICIENTS

Some literature strongly criticises an unclear use of the word 'significance' (e.g. McCall, 2005; McCloskey & Zilliak, 1996; McCloskey, 1983; Miller & van der Meulen Rodgers, 2008). I think here it suffices to say that when I use the term 'significant' or any conjugation thereof, I mean statistical significance.[59] The size of the coefficients (and thus their 'substantial significance') is discussed separately, and Section 6.8 will pay special attention to the different influences' relative degree of influence.

6.3 COMPETING NEEDS: INCOME AND CARE

This section focuses on the effect of income and of care needs in the household. An increase in the first is expected to lead to higher employment propensities among women, whereas rising care needs are thought to restrict women from entering the labour market. Two hypotheses on the presence of children and male breadwinners were tested in this regard (see Box 6.1 for the hypotheses and outcomes).

Regarding the presence of male breadwinners, both variables show a clear and significantly negative effect ($p<0.001$). The odds that women with a spouse are employed are 56% lower than those of unmarried women (Model 4). Women living in a household in which the head of the household is a man of working age have 18% lower odds of employment (Model 4). This effect is considerably smaller than in the bivariate analyses, because in there the effect is not controlled for being married.

The dummies for the number and age of children showed some surprising results in the bivariate analyses: (a) women with one or two children, including young ones, work more often than any other group of women; and (b) women with a more than three children, all over five years old, work less than women with the same number of children, but at least one of them under five years old. However, these figures do not take into account, for example, the correspondence between the age of the respondent and having children and the respondent's age and her lower employment likelihood. After controlling for other factors, particularly age, the results (Model 4) show that, as the number of children rises, women's likelihood of employment decreases. The effect of the number of children seems to matter most if no young children are present. If young children are present, women are clearly held back more to enter the labour market and the number of children matters less (see Figure 6.1).[60] That there is no significant difference between having one or two older children and none at all might indicate that the influence of children's presence should be understood in terms of both care and economic needs, the former being dominant. If the care needs are not too high, however, the rise in economic needs may push women to enter the labour market.

In conclusion, both hypotheses with regard to economic and care needs in the household are corroborated.[61] Furthermore, the significant findings for both variables related to Hypothesis 3.1 support the idea that, while different people can be responsible for providing a household with an income, men are the first to fulfil economic needs. With respect to Hypothesis 3.2, having more children restricts women's employment, particularly the presence of young children.

6.4 LABOUR DEMAND: CREATING OPPORTUNITIES

The second group of variables revolves around the expectation that an increasing demand for labour creates opportunities for women to become gainfully employed. Particularly, the processes related to economic development and industrialisation (as an important phase of a modernisation trajectory) are highlighted as potential causes of an increased demand for female labour. Empirical analyses show a somewhat more complex picture. The hypotheses and outcomes are summarised in Box 6.2.

Firstly, the general economic development level of the area women live in was measured at both the country and the district level. At the country level multivariate analyses found no effect,[62] and the effect in the bivariate model was small. At the district level, however, a much

Table 6.1 Coefficients of bivariate four-level logistic regression analyses with the logged odds of being non-agriculturally employed as dependent

Variable	range	Log odds	s.e.	O.R.
Null model				
Micro level				
Children (ref = no children)				
1or 2, older than 5	Dummy	0.182 ***	0.021	1.20
3 or 4. older than 5	Dummy	-0.118 **	0.036	0.89
5 or more. older than 5	Dummy	-0.581 ***	0.150	0.56
1 or 2. at least 1 younger than 6	Dummy	-0.351 ***	0.018	0.70
3 or 4. at least 1 younger than 6	Dummy	-0.302 ***	0.021	0.74
5 or more. at least 1 younger than 6	Dummy	-0.424 ***	0.031	0.65
Partner present (ref = no partner)	Dummy	-0.599 ***	0.016	0.55
Presence male breadwinner (ref = no)	Dummy	-0.549 ***	0.018	0.58
Education (ref = less than primary completed)				
primary completed, secondary not	Dummy	0.600 ***	0.020	1.82
Secondary completed, no tertiary	Dummy	1.505 ***	0.024	4.50
at least some tertiary	Dummy	3.204 ***	0.031	24.63
Living in a city (ref = no)	Dummy	1.417 ***	0.017	4.12
Partner's occupation (ref = blue collar)				
Agriculture	Dummy	-1.070 ***	0.023	0.34
Lower white collar	Dummy	0.198 ***	0.022	1.22
Upper white collar	Dummy	0.767 ***	0.024	2.15
Unemployed	Dummy	-0.055	0.043	0.95
Values a: Age woman at birth first child	7 - 49	0.071 ***	0.002	1.07
Values b: Age difference (partner – woman)	-35 - 69	-0.022 ***	0.001	0.98
Values c: Partner's education (ref = less than primary)	Dummy	0.405 ***	0.020	1.50
primary completed, secondary not	Dummy	0.963 ***	0.025	2.62
secondary completed, no tertiary	Dummy	1.854 ***	0.029	6.39
at least some tertiary				
Values d: Traditional household structure	0 - 2	-0.186 ***	0.014	0.83
Age	15 - 49	0.196 ***	0.005	1.22
Age^2	225 - 2401	-0.003 ***	0.000	1.00
District level				
Economic development: Wealth level	0.01 - 0.87	3.253 ***	0.125	25.87
Male labour supply: Male non-employment	0.00 - 0.71	-3.848 ***	0.638	0.02
Labour market structure: Share white collar	0.03 - 0.81	3.622 ***	0.133	37.41
Labour market structure: Share skilled labour	0.01 - 0.48	2.607 ***	0.411	13.56
Degree of urbanisation	0.00 - 1.00	1.930 ***	0.118	6.89
Norms: Women in public sphere	0.00 - 0.79	5.847 ***	0.540	346.19
Norms: Traditional care roles	0.03 - 0.76	-4.369 ***	0.385	0.01
Country level				
Economic development: GDP/c (*1000)	0.49 - 8.16	-0.040 *	0.017	0.96
FDI (In three years average (% GDP))	-1.11 - 3.50	0.129 ***	0.037	1.14
Democracy (Freedom House)	1 - 5	0.078 ***	0.023	1.08
State institutionalisation of conservative Islam	0 - 6	-0.226 ***	0.032	0.80
Traditional family policies & laws	0.06 - 0.71	-0.633 ***	0.173	0.53
Public sector: Gov. expenditures (prop. GDP)	0.05 - 0.41	-0.065 ***	0.008	0.94
Social Safety: Family Allowance policies	Dummy	-0.180 *	0.076	0.84

* p<0.05 ** p<0.01 *** p<0.001; N_i = 296,460; N_h = 227,477; N_d = 383; N_c = 28; Models are based on MCMC estimation, starting from IGLS models weighted for in-country and between-country representativeness. Sources: see Chapter 4.

variable

Country variance	District variance	Household variance	DIC
1.397 (0.436)	0.667 (0.052)	2.667 (0.072)	259,321.12
1.373 (0.417)	0.649 (0.053)	2.592 (0.067)	258,839.14
1.168 (0.353)	0.654 (0.053)	2.539 (0.079)	258.748.14
1.422 (0.448)	0.665 (0.055)	2.605 (0.070)	258,912.28
1.267 (0.385)	0.516 (0.041)	2.366 (0.052)	247.425.79
			.
			.
			.
1.554 (0.474)	0.440 (0.037)	2.259 (0.059)	254,126.30
1.392 (0.415)	0.542 (0.044)	2.251 (0.060)	255,416.50
1.583 (0.488)	0.627 (0.050)	2.519 (0.077)	258,792.10
1.349 (0.408)	0.662 (0.053)	2.670 (0.084)	258,955.40
1.437 (0.431)	0.594 (0.047)	2.488 (0.050)	255,334.55
1.364 (0.417)	0.652 (0.052)	2.587 (0.085)	259,664.13
1.473 (0.456)	0.644 (0.051)	2.563 (0.057)	256,834.43
2.143 (0.625)	0.448 (0.036)	2.616 (0.058)	259,605.18
1.219 (0.368)	0.664 (0.055)	2.625 (0.053)	259,584.75
1.467 (0.431)	0.419 (0.035)	2.616 (0.061)	259,584.75
1.400 (0.425)	0.607 (0.051)	2.605 (0.090)	259,671.41
1.553 (0.477)	0.435 (0.036)	2.662 (0.051)	259,348.86
1.799 (0.551)	0.513 (0.042)	2.688 (0.073)	259,201.52
1.605 (0.491)	0.564 (0.046)	2.623 (0.058)	259,552.21
1.355 (0.405)	0.661 (0.053)	2.583 (0.072)	259,726.56
1.391 (0.413)	0.668 (0.055)	2.617 (0.059)	259,574.67
1.269 (0.393)	0.660 (0.052)	2.607 (0.062)	259,589.42
1.010 (0.309)	0.663 (0.052)	2.644 (0.057)	259,455.94
1.482 (0.458)	0.670 (0.055)	2.658 (0.080)	259,369.44
1.064 (0.324)	0.664 (0.053)	2.632 (0.057)	259,506.07
1.314 (0.403)	0.660 (0.052)	2.597 (0.069)	259,679.40

Table 6.2 Coefficients of multivariate four-level logistic regression analyses with the logged odds of being non-agriculturally employed as

		Model 1 – Null model		
Variable	**Range**	**Log odds**	**s.e.**	**O.R.**
Micro level				
Children (ref = no children)				
1or 2, older than 5	Dummy			
3 or 4, older than 5	Dummy			
5 or more, older than 5	Dummy			
1 or 2, at least 1 younger than 6	Dummy			
3 or 4, at least 1 younger than 6	Dummy			
5 or more, at least 1 younger than 6	Dummy			
Partner present (ref = no partner)	Dummy			
Presence male breadwinner (ref = no)	Dummy			
Education (ref = less than primary completed)				
primary completed, secondary not	Dummy			
secondary completed, no tertiary	Dummy			
at least some tertiary	Dummy			
Living in a city (ref = no)	Dummy			
Partner's occupation (ref = blue collar)				
Agriculture	Dummy			
Lower white collar	Dummy			
Upper white collar	Dummy			
Unemployed	Dummy			
Values a: Age woman at birth first child	7 - 49			
Values b: Age difference (partner – woman)	-35 - 69			
Values c: Partner's education (ref = less than primary)				
primary completed, secondary not	Dummy			
secondary completed, no tertiary	Dummy			
at least some tertiary	Dummy			
Values d: Traditional household structure	0 - 2			
Age	15 - 49			
Age^2	225 - 2401			
District level				
Economic development: Wealth level	0.01 - 0.87			
Male labour supply: Male non-employment	0.00 - 0.71			
Labour market structure: Share white collar	0.03 - 0.81			
Labour market structure: Share skilled labour	0.01 - 0.48			
Degree of urbanisation	0.00 - 1.00			
Norms: Women in public sphere	0.00 - 0.79			
Norms: Traditional care roles	0.03 - 0.76			
Country level				
Economic development: GDP/c (*1000)	0.49 - 8.16			
FDI (ln three years average (% GDP))	-1.11 - 3.50			
Democracy (Freedom House)	1 - 5			
State institutionalisation of conservative Islam	0 - 6			
Traditional family policies & laws	0.06 - 0.71			
Public sector: Gov. expenditures (prop. GDP)	0.05 - 0.41			
Social Safety: Family Allowance policies	Dummy			

Continues on pages 142–143

dependent variable

Model 2 – Context levels[1]			Model 3 – Micro level			Model 4 – Country, District and Micro level[2]		
Log odds	s.e.	O.R.	Log odds	s.e.	O.R.	Log odds	s.e.	O.R.
			-0.029	0.024	0.97	-0.026	0.024	0.97
			-0.220 ***	0.038	0.80	-0.214 ***	0.039	0.81
			-0.542 ***	0.153	0.58	-0.542 ***	0.148	0.58
			-0.182 ***	0.023	0.83	-0.180 ***	0.021	0.84
			-0.285 ***	0.029	0.75	-0.281 ***	0.027	0.76
			-0.379 ***	0.039	0.68	-0.375 ***	0.037	0.69
			-0.827 ***	0.021	0.44	-0.833 ***	0.024	0.43
			-0.203 ***	0.018	0.82	-0.203 ***	0.018	0.82
			0.425 ***	0.021	1.53	0.426 ***	0.020	1.53
			1.106 ***	0.029	3.02	1.108 ***	0.027	3.03
			2.575 ***	0.036	13.13	2.574 ***	0.036	13.12
			0.818 ***	0.018	2.27	0.813 ***	0.019	2.25
			-0.860 ***	0.024	0.42	-0.861 ***	0.025	0.42
			0.047 *	0.022	1.05	0.047	0.024	1.05
			0.170 ***	0.027	1.19	0.173 ***	0.026	1.19
			0.045	0.044	1.05	0.045	0.046	1.05
			-0.005 **	0.002	1.00	-0.005 **	0.002	1.00
			-0.006 ***	0.001	0.99	-0.006 ***	0.001	0.99
			0.043	0.024	1.04	0.042	0.024	1.04
			0.096 **	0.029	1.10	0.093 **	0.028	1.10
			0.114 ***	0.034	1.12	0.110 ***	0.034	1.12
			-0.126 ***	0.014	0.88	-0.125 ***	0.014	0.88
			0.235 ***	0.013	1.26	0.235 ***	0.011	1.26
			-0.003 ***	0.000	1.00	-0.003 ***	0.000	1.00
-0.665 **	0.230	0.51				-1.308 **	0.409	0.27
-2.715 ***	0.542	0.07				-2.063 **	0.716	0.13
2.161 ***	0.186	8.68				1.312 ***	0.209	3.71
0.910 *	0.459	2.48				0.628	0.358	1.87
0.674 ***	0.153	1.96				0.050	0.182	1.05
3.801 ***	0.378	44.75				2.971 ***	0.308	19.51
-2.410 ***	0.430	0.09				0.214	0.327	1.24
-0.329 ***	0.035	0.72				-0.428 ***	0.052	0.65

Table 6.2 Continued

		Model 1 – Null model		
Variable	**Range**	**Log odds**	**s.e.**	**O.R.**
Model statistics				
Household-level variance		2.667 ***	0.072	
District-level variance		0.667 ***	0.052	
Country-level variance		1.397 **	0.436	
Intercept		-1.639 ***	0.104	
DIC Diagnostic		259,321.12		

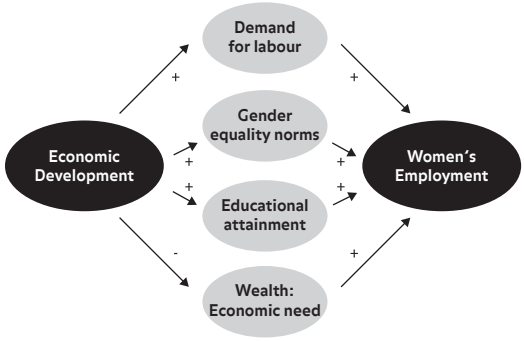
* p<0.05 ** p<0.01 *** p<0.001; N_i = 296,460; N_h = 227,477; N_d = 383; N_c = 28; Models are based on MCMC estimation (5,000 iterations), starting from IGLS models weighted for in-country and between-country representativeness (see Chapter 4); Sources: see Chapter 4; Notes: (1) Given the low number of country level observations, only the significant country-level variables are included in the model, this was determined using backward deletion; (2) The same procedure was followed as for Model 2, several country-level variables showed 'unhealthy' trajectory histories (see Browne, 2005: 25) and the number of iterations in the MCMC procedure was increased. After several increases (up to 70,000) it was decided to exclude the two 'unhealthy' variables (public sector and economic development), because they showed no clear significant effect. In notes to the text, I will refer to these results.

Model 2 – Context levels[1]			Model 3 – Micro level			Model 4 – Country, District and Micro level[2]		
Log odds	s.e.	O.R.	Log odds	s.e.	O.R.	Log odds	s.e.	O.R.
2.617 ***	0.088		2.126 ***	0.072		2.126 ***	0.067	
0.324 ***	0.028		0.430 ***	0.035		0.375 ***	0.032	
1.358 **	0.426		2.126 **	0.667		1.062 ***	0.323	
-1.689 ***	0.166		-5.102 ***	0.346		-5.571 ***	0.115	
259,579.61			236,041.50			236,027.50		

Box 6.2

3.3	To the extent the economic development of a community/country increases, the greater the probability of a woman
✓/x	being gainfully non-agriculturally employed in that community/~~country~~.
3.4	To the extent that the male labour supply in a community is more depleted, the greater a woman's probability of being
✓	gainfully non-agriculturally employed in that community.
3.5	To the extent that the relative number of light manufacturing jobs in a community increases, the greater the probability
?✓	of a woman being gainfully non-agriculturally employed in that community.
3.6	To the extent that the urbanisation of place a woman lives increases, the greater the probability of a woman being
✓	gainfully non-agriculturally employed.
3.7	To the extent the foreign direct investments in a country increase, the greater the woman's probability of being gainfully
? x	non-agriculturally employed in that country.

Figure 6.2 The difference pathways from economic development to women's employment



63 Running additional models with economic development as explanatory variable for women's employment, adding the other district-level variables one by one shows that it is not one variable in particular that takes away the effect of economic development, but that they all contribute to this in combination.

64 That the found difference in size of the negative coefficient comparing Model 4 and Model 3 is not due to coincidence can only be said with 70% certainty. We also see that using the IGLS estimation (Appendix 6.1), the effect of economic development is still negative but only with a certainty of 85 or 80% (using 5 percentage points intervals) which is generally not considered acceptable.

65 The rerun of the models with different estimation techniques supports the possible existence of this effect. In the weighted IGLS estimated model the effect is considerably stronger and statistically significant at 0.1%. Moreover, a MCMC model with 15,000 iterations, in stead of the standard 5,000, shows only one difference with the 5,000 model: the effect of light manufacturing is somewhat larger and statistically significant at the 5.3% level. The coefficient in that model is 1.046.

66 In Model 4, without the living-in-a-city variable, the logged odds of the district-level urbanisation variable are 0.756, the s.e. 0.168.

larger effect was found. In the bivariate analysis the increase in logged odds on employment per standard deviation increase in district wealth is 1.53. This positive effect, however, completely disappears after control for the district-level norms and the labour market structure variables.[63] Considering the multiple impacts economic development can have helps to understand this disappearing act (see Figure 6.2). Economic development has an effect on women's employment because of the creation of more jobs in industry and services, as well as a concurrent shift in values away from traditionalism, towards the acceptance of women in the public sphere. However, the positive effect not only disappears taking into account district-level norms and the labour market structure variables, in Model 2 and Model 4 economic development even has a negative effect, which in particularly grows after the inclusion of education.[64] Thus after controlling for effect through the factors mentioned above, economic development tends to decrease the need for women to enter the labour market: the (male) breadwinners seem to then be able to provide a sufficient income for the household without women earning additional income.

The three variables discussed next focus on the structure of the labour market. The male labour supply was measured by the degree of men's non-employment and it was expected that the more men are non-employed, the lower employment likelihoods of women. In all models a strong and highly significant negative effect is found for this variable. After control (Model 4), the effect is smallest, but still the odds on employment for women living in the district with the highest non-employment are less than a quarter of those of a woman in the district with the lowest non-employment. The results show that the demand for female labour, and thus women's employment likelihood, is clearly lower if more men are not employed.

The size of the light-manufacturing sector might be mediating between economic development and women's employment, but the most important sector seems to be the service sector (see Section, 6.5). In Model 4, the variable's effect is not significant (Table 6.2). Additional models, however, tend to support the expected effect of the presence of light manufacturing jobs.[65] Furthermore, the distinction I made theoretically between heavy and light manufacturing labour seems justified. The former clearly has no effect on women's (non-agricultural) employment, whereas the latter seems to do have effect (Table 6.3).

The demand for labour and the availability of jobs is also measured by urbanisation. Based on the bivariate models, I conclude that there is a large difference between women living in more rural areas and women living in more urban areas. At the micro-level, women living in a city have employment odds that are 312% higher than those of women not living in a city. After control for other micro-level differences, the effect at the household level decreases, but is still present and rather strong: women living in a city have employment odds that are 125% higher than those of women not living in a city. The effects of higher education and of having a partner employed outside agriculture have been filtered from that figure. Part of the decline in the coefficient can be indirect. Girls living in cities probably have more educational opportunities (see Huisman & Smits, 2009; Kazeem, Jensen & Stokes, 2010; Smits, 2007), and consequently higher likelihoods of employment.

In the final model, living in a more urbanised district was found to have no effect. Though economic development and the size of the service sector take away the influence of urbanisation at the district level, a reasonable effect still remains. However, when living in a city is included, the district-level urbanisation becomes irrelevant.[66] The results for the two urbanisation variables strongly support the argument about the importance of proximity of women to opportunities. To a large extent the effect of urbanisation at the district level is compositional: it is not the number of cities in the vicinity, but living in the city itself that counts.

The influence of foreign direct investment is often linked to labour market structures, but it does not seem to work through them. After controlling for other factors the effect of FDI disappears, while in the bivariate analysis it makes a maximum difference of an 81% increase in women's employment odds. Additional test show that it is not economic development or the labour market structure, as might be expected, are responsible for the decline in FDI effect. In these data, the institutionalisation of conservative Islam rather is the variable that has led to this result. It seems that the overlap between low FDI and a higher level of institutionalised

Table 6.3 District-level coefficients including non-light manufacturing manual jobs

Variable	(1) Model 4, Table 6.2	(2) (1) + non-light manufacturing
Economic development: Wealth level	-1.308 **	-0.533
Male labour supply: Male non-employment	-2.063 **	-2.060 ***
Labour market structure: Share white collar	1.312 ***	1.322 *
Labour market structure: Share skilled labour	0.628	1.501 *
Labour market structure: Share unskilled labour	-	-0.162
Degree of urbanisation	0.050	0.025
Norms: Women in public sphere	2.971 ***	2.162 ***
Norms: Traditional care roles	0.214	1.385

Note: These coefficients are based on a model of which all specifications are the same as Model 4 in Table 6.2. The only difference is that one variable is added to the model: non-light manufacturing manual jobs. This variable is measured similarly to the light manufacturing variable (Section 4.6.3), but now unskilled manual jobs are used in the numerator.

Box 6.3

3.8 To the extent that the number of jobs in the service sector in a community increases, the greater the probability a woman
✓ in that community is gainfully non-agriculturally employed.
3.9 To the extent that a country's public sector size increases, the greater the probability a woman in that country is gainfully
? x non-agriculturally employed.

67 While the analyses here cannot fully support the idea of a secondary labour force, it could have been refuted if no effect for the non-employment for men had been found.

68 To test this further, the inclusion of wealth at the household level could be considered; however, this would not be insightful because of strong problems with reversed causality. The presence of working women increases the wealth level of the household.

69 In a 5,000 iterations MCMC model with explanatory factors at all four levels, deleting country-level variables backwardly, the public sector size shows a significant negative effect. However, the trajectory histories suggested that more iterations were needed for a better estimation. Models with more iterations show an insignificant or negligible effect (e.g. the coefficient in a 70,000 iterations model is just significant at 5%, and has a maximum influence of a 1.8% decrease in odds. Including it in the model would lead to no different overall conclusion, since Hypotheses 3.9 is not supported by these results either.

conservative Islam (such as in Mauritania, Pakistan, Syria, and Yemen, or the other way around in Azerbaijan, Eritrea, Kazakhstan, and Turkey) might have distorted the bivariate results. This strongly suggests that the bivariate correlation are not causal, because companies are more likely to invest in countries where more women are already active on the labour market (given the strong relationship between employment and state Islamisation) (see also Busse & Nunnenkamp, 2009). The results found here might also explain why Clark, Ramsby & Adler (1991) and Gray, Kittilson & Sandholtz (2006) found no link between FDI and women's employment, while Pyle & Ward (2003) and Richards & Gelleny (2007) found a positive relationship between FDI and the general socio-economic position of women, because FDI does not create extra jobs but might 'import' gender equality norms.

The conclusion here should clearly be that the demand for labour is an important reason for women's employment to increase. It has also been shown that combining different variables and studying them in models including micro-level factors can provide interesting information about the causal mechanisms at work, for instance with respect to proximity (e.g. urbanisation), multiple effects (e.g. economic development), and pathways (e.g. the combination of economic development, FDI, and light manufacturing). The results most clearly support Hypotheses 3.4 and 3.6 (see Box 6.2). With regard to Hypothesis 3.4 that states that a further depletion of the male labour force increases women's chances, it must be added that the results here are no conclusive proof of the hypothesis' underlying idea of women as a secondary labour force, which informed the inclusion of this variable.[67] Whether the effect of non-employment is stronger for women than men can only be tested through separate models with men's employment as dependent variable. Furthermore, the hypothesis on the presence of light manufacturing jobs (Hypothesis 3.5) can be cautiously accepted, but this type of jobs does not seem to be a channel through which Foreign Direct Investments (Hypothesis 3.7) influences employment. Economic development (Hypothesis 3.3), on the other hand, does seem to increase labour demand. At the same time economic development harbours a multitude of other effects (see Figure 6.2). Economic development seems to change societal norms and labour market demands (more service sector jobs), both benefiting women. Moreover, it is related to higher educational levels, fostering women's chances (also compared with men). Simultaneously, the results here suggest that economic development can also decrease women's employment because of lower economic needs.[68]

6.5 MATCHING DEMAND AND SUPPLY: SUITABLE AND ACCESSIBLE JOBS

Above, the availability of jobs has been discussed from the perspective of demand, of the employer's perspective. In this section, the focus shifts to the characteristics of women and what is deemed acceptable for them, given the gendered segregation of economic activities. I have argued that additional demand for labour has the strongest positive effect if it fits women's role in society. As is to be expected, this is mostly the case for the service and public sectors (see Box 6.3 for the hypotheses).

Regarding the service economy, the relative number of white-collar jobs in a district has a strong, consistently positive effect in all analyses. The creation of white-collar jobs benefits women's gainful non-agricultural employment considerably (Hypothesis 3.8). The results, however, also suggest that the effect will be overstated if micro-level differences are not taken into account. The difference between Models 2 and 4 (Table 6.2) is interesting because it is largely due to the inclusion of education. It can be that the same processes of economic modernisation or government policies lead to both higher education levels and a larger service sector in an area. The effects of labour market structures found in exclusively macro-level studies can thus partially be an example of multilevel spuriousness.

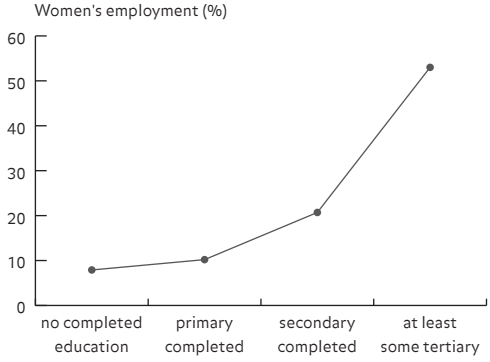
For the size of the public sector variable no substantial and significant effect was found. The effect was only statistically significant in the bivariate analysis, but its size is negligible.[69] The odds on employment only decrease by 2% over the full range of the variable. Rejecting Hypotheses 3.9 outright may nonetheless be a bit too rigorous. In the operationalisation of the explanatory factor I was obliged to determine the size of government in terms of expenditures

Box 6.4

3.10 To the extent a woman has more human capital, the greater the probability a woman is gainfully non agriculturally ✓ employed.

3.11 To the extent the household belongs to a social network at a higher socio-economic class, the greater the probability a ✓ woman in that household is gainfully non-agriculturally employed.

Figure 6.3 Predicted probability on employment (%) for an average woman in an average context



Box 6.5

3.12 To the extent that the presence of women in the public sphere in a community increases, the greater the probability that ✓ a woman in that community is gainfully non-agriculturally employed.

3.13 To the extent that the dominance of traditional care roles in a community increases, the smaller the probability that a **?✓** woman in that community is gainfully non-agriculturally employed.

Table 6.4 Coefficients of a country, district model including education at the micro level

Variable	(1) Model 2, Table 6.2	(2) (1) + education
Economic development: Wealth level	-0.665 **	-0.753 ***
Male labour supply: Male non-employment	-2.715 ***	-2.465 ***
Labour market structure: Share white collar	2.161 ***	1.927 ***
Labour market structure: Share skilled labour	0.910 *	1.256 ***
Degree of urbanisation	0.674 ***	0.629 ***
Norms: Women in public sphere	3.801 ***	2.975 ***
Norms: Traditional care roles	-2.410 ***	-0.251
Education (ref = less than primary completed)		
primary completed, secondary not	-	0.585 ***
secondary completed, no tertiary	-	1.481 ***
at least some tertiary	-	3.169 ***

Note: These coefficients are based on a model of which all specifications are the same as Model 2 in Table 6.2. The only difference is that the dummies measuring women's educational attainment at the micro level are included.

70 To calculate these predicted probabilities, an equation based on the coefficients from Model 4 (Table 6.2) is formulated. Using the averages (as reported in Table 4.2) for each of the variables and the different values for education, the logged odds are calculated which are transformed to the probabilities presented here (see e.g. Pollock, 2009).

instead of employees, as there were no useable data available on government employee numbers, which might have shown a clearer relationship.

Matching demand and supply also drew attention to the resources of women and their households. If the resources were greater, it was expected that women would more easily find a suitable job (Box 6.4).

Education as the operationalisation of human capital is very strongly related to women's employment. With significant logged odds coefficients of 0.4, 1.1, and 2.6 for primary, secondary, and tertiary education (compared to no education), this is one of the main factors influencing women's employment. The two highest levels of education are especially important. As Figure 6.3 shows, the probability of employment rises most steeply between having completed secondary education and having at least some tertiary education: from 21% to 53% – at least, for the average woman living in the average district of the average country.[70] However, it should not be forgotten that few women (<7%) have enjoyed higher education.

The second resource focussed on is the socio-economic status of the social network a woman has access to, in terms of her spouse's job. It seems that women whose spouse has a lower white-collar job, a blue-collar job, or whose spouse is unemployed, all have roughly the same employment opportunities. The main differences are found for women with a partner in agriculture (even after control for living in a city) and with a husband who has an upper white-collar job. The former have a considerably lower likelihood of employment, the latter a somewhat higher one. These results are roughly in line with expectations. However, the effect is only modest: the increase in odds on employment is about 13% to 19% for women with an upper white-collar spouse, compared to the women with a partner with a lower (non-agricultural) occupational status.

Both education and partner's occupation as indicators of household resources have been shown to be influencing women's employment positively, but it is clear that education is the more important of the two. Hypotheses 3.10 and 3.11 are thus supported. Primary education has a positive effect as well, while others have argued that it leads to a lower likelihood of employment (e.g. Aromolaran, 2004; Kuepie, Nordman & Roubaud, 2009). Given the large number of uneducated women and the efforts to increase the basic education levels in many of the 28 countries, this is an important conclusion. Providing women with at least primary education is thus potentially likely to increase women's employment.

In this section, the results have shown that not only is the presence of jobs important, but there should be a match between women and the jobs that are available for these women to become employed. On the demand side the presence of service sector jobs seems very important, and on the supply side women's education.

6.6 THE ADDED VALUE OF WORK: SOCIETAL AND INTERNALISED NORMS

Values were expected to form the background of other variables and to have direct effects. Regarding the latter, more traditional norms at the societal level (see Box 6.5) and more traditional values held by household member or internalised by women (Box 6.6) were theoretically linked to lower employment levels, and the same goes for institutionalised conservative values, more particularly, state institutionalisation of conservative Islam (Box 6.7).

At the district level, both variables measuring societal norms are related to women's employment in the bivariate analyses, and the direction is as expected. In Table 6.2's Model 2 the relationships are still statistically significant, but somewhat more modest due to the inclusion of the other societal-level variables. Even when not taking into account the possible indirect effect through education, the positive direct effect of the public sphere being less dominated by men is still substantial (Table 6.4). Women living in a district with a score one standard deviation (0.16) above its mean (0.21) have odds on employment that are 159% higher than women living in a district scoring one standard deviation below the mean.

The effect of traditionalism disappears almost completely after including education (Table 6.4). It might be that norms regarding traditional care roles do mainly prevent women

Box 6.6

3.14 To the extent that other household members hold more traditional values, the smaller the probability that a woman in
✓ that household is gainfully non-agriculturally employed.
3.15 To the extent that more traditional values are internalised, the smaller the probability that a woman is gainfully non
✓ agriculturally employed.

Box 6.7

3.16 To the extent the institutionalisation of conservative Islam into the state increases, the smaller the probability
✓ that a woman in that country is gainfully non-agriculturally employed.

71 In the IGLS model, the effect even turns positive. This clearly refutes the hypothesis. In later chapters this results is found as well. I will pay some more attention to it in the concluding chapter, where I argue that filtering out individual level values might lead to this variables capturing a wealth effect.

72 Given the large number of cases, this level of significance is rather modest.

73 I do not mean to say here that the effect of values is larger than the sum of these effects, only that the controlled direct effect of values in general can be expected to be somewhat higher than the small separate effects.

In addition it should be noted that the effects of the individual value variables does vary across estimation techniques (Appendix 6.1). The signs are all according to expectations, but for age at birth of the first child and a partner's education only the MCMC model shows statistical significant results. For traditional household structures and age difference all models do. Despite these somewhat less robust results, it is safe to conclude that overall micro-level values do have the expected impact on women's employment.

from entering the educational system and that consequently their likelihood of employment decreases. It should be noted however, that the effect found for traditionalism at the district level is not consistently found across models using different estimation methods.[71]

Based on the analyses in this section, it can be concluded that values and norms seem to have a direct and an indirect effect on women's employment. If we include the possible indirect effects, both hypotheses (3.12 and 3.13) seem to be corroborated. The support for Hypotheses 3.13, however, rests solely on the indirect effect through education.

At the micro-level, four variables have been used to measure the impact of the (internalised) values of women and their household members: (1) the age of the woman at the birth of her first child, (2) the age difference with the partner, (3) the partner's education, and (4) the presence of traditional household structure. The more traditional the values, the lower the expected employment propensity. The results are summarised in Box 6.6.

Each of these variables appears to be related to women's employment, but all decrease in strength considerably after controlling for other micro-level factors. Moreover, the age of the woman when she gave birth to her first child shows a small negative effect ($p<0.01$) where a positive was expected.[72] Overall, it still seems that the cluster as a whole shows the expected results. The decrease in effects after controlling for factors such as education and having children suggests indirect effects as well. Over the full range, increasing age difference between spouses decreases the odds on employment by about 50%. Rises in the educational level of the husband shows a steady increase in odds on women's employment, and the odds are 12% higher for women with tertiary-educated partners compared to women with uneducated partners. Lastly, women living in household with the least traditional structure (nuclear, not polygynous) have 28% higher odds of employment than women in the most traditional (extended, polygynous) structures, 1.4% of all women included here.

While each of these effects is limited in strength, it should be taken into account that they all work simultaneously, meaning that the effect of the micro-level values cluster as a whole is larger.[73] With regard to Hypotheses 3.14 and 3.15, the four value variables I have used do not neatly distinguish between the two hypotheses; as they overlap it is difficult exactly to determine whether the behaviours used as proxies tap into a woman's or, for instance, her partner's values. Only a partner's education seems rather safe to declare an indicator of the partner's values. The other variables tap into both the value system of the household in which a woman was raised, her own values, and the values of the partner. Yet, since three out of four variables show statistically significant effects in the expected direction, I do think the evidence is solid enough to consider both the hypotheses supported.

In the analyses, the institutionalisation of conservative Islam was included to test the idea that institutionalised values also influence women's employment (Box 6.7). In all models and the bivariate analyses, this country-level variable is the only one that is consistently and strongly related to women's employment. The more conservative Islam is institutionalised in a country, the lower the probability that a woman in that country is employed. Most countries are coded 0 (13) or 2 (5) on this variable ranging from 0 to 6. Women in a country with a score of 2 have odds of employment 58% lower than women in a state in which Islam is not institutionalised at all.

Overall, in these analyses, many different value variables simultaneously, but also differently, affect women's employment. This strongly supports the view that 'values' is not just one influencing factor, while different values are often treated as one in cultural explanations. Moreover, values can be internalised by women or by their direct environment. They can take the form of societal norms, and they can become institutionalised in the state. Distinguishing between these helps to think about what and how changes in value patterns might or might not influence women or not and how. Moreover, a change in the values upheld in society might change women's position but not directly lead to changes in the institutionalised values. Through institutionalisation, 'old' values can have unexpected long-lasting effects. On the other hand, institutionalised values might be more easy to change than societal norms or internalised values. Also, results suggest that values can be grounded in different sources, as is evident when surveying the difference between Islam-based values to values more generally related to traditional gender roles.

Box 6.8

3.17 To the extent that traditional gendered family roles are more institutionalized in government policies, the smaller the
?/? ✓ probability that a woman in that country is gainfully non-agriculturally employed.
3.18 To the extent that the size of the social safety net in a country increases, the smaller the probability that a woman in that
?/? ✓ country is gainfully non-agriculturally employed.

Box 6.9

3.19 To the extent that the level of democracy in a country is higher, the greater the probability that a woman in that country
?/? ✓ is gainfully non-agriculturally employed.

Box 6.10: Overview hypotheses and results

Theoretical factor	Expectation	Results	Operationalised variable	Expectation	Results	
Accepted						
H3.1: Presence male breadwinner	-	✓	Partner present	-	✓	
			Working male is head of household	-	✓	
H3.2: Presence children	-	✓	presence of children	+	✓	
H3.4: Male labour supply	-	✓	Non-employed men in district	-	✓	
H3.6: Urbanisation	+	✓	Living in a city	+	✓	
			Degree of urbanisation in district	+	**?✓**	
H3.8: Service sector	+	✓	Number of service sector jobs in district	+	✓	
H3.10: Human capital	+	✓	Education	+	✓	
H3.11: Socio-economic class network	+	✓	Occupation(al status) partner	+	✓	
H3.12: Norms public presence women (pro)	+	✓	Relative presence women in education and labour	+	✓	
H3.14 & H3.15: Traditional values household members &	-	✓	Partner's education	+	✓	
			Age difference with partner (partner-women)[1]	-	✓	
traditional values woman		✓				
	-		Traditional family structure[1]	+	✓	
			Age at birth first child[1]	-	**x**	
H3.16: Institutionalisation conservative Islam	-	✓	Codification of Islam in constitution	-	✓	
Accepted, but also counteracting effects found						
H3.3: Economic development	+	✓	Country: GDP/c	+	**x**	
			District: Wealth	+/-	✓	Possibly includes a negative indirect effect
Cautiously accepted						
H3.5: Light manufacturing	+	**?✓**	Proportion skilled labour	+	**?✓**	
H3.13: Norms traditional care roles (pro)	-	**?✓**	Prevalence of traditional households	-	**?✓**	
H3.17: Traditional gendered family role policies	-	**?/? ✓**	Gender unequal policies and laws	-	**?/? ✓**	
H3.18: Social safety net	-	**?/? ✓**	Family allowance	-	**?/? ✓**	
Not accepted						
H3.7: Foreign direct investment	+	**x**	Ln (FDI three years average (% GDP))	+	**? x**	
H3.9: Public sector size	+	**x**	Government expenditures	+	**? x**	
H3.19: Democracy	+	**x**	Freedom House civil liberties and political rights	+	**? x**	

Notes: (1) While these value proxies are related to either the degree of traditionalism of the household member or of the women, the variables are expected to capture both.

6.7 THE ROLE OF THE GOVERNMENT: SHAPING OPPORTUNITIES AND NEEDS

The last group of variables has drawn attention to how government policies reflect values and shape opportunities and needs. Reinforcing dominant gender roles was expected to influence employment negatively as were policies decreasing economic need (Box 6.8); on the other hand, giving women room to influence policies was expected to increase employment (Box 6.9).

The bivariate models (Table 6.1) indicate that more traditional family policies are related to lower employment, as well as an increase in family allowances. The latter is only significant at the 5% level, but given the limited number of countries (28), this still seems to support the idea that family allowances discourage women from entering the labour market. However, for both variables the results do not hold when other variables are included in the model. Different groups of variables can account for the difference found between models. Consequently, it is unclear whether the bivariate results are spurious, top-down indirect, or absent because of technical reasons.

Spuriousness could firstly be derived from disappearing effects after the inclusion of economic and labour market structure variables and societal norms. In this case, it could also be argued that the policies work through district-level norm variables. However, the policy variables focus on very specific policies, whereas the norm variables focus on general norms. As the measurement of the policy variables comes closer to the direct actions of women than to the norms, it is unlikely that these particular policies have a large influence on norms, without having a direct effect on women's employment. Secondly, the traditional family policies might lead to a lower educational participation of women, and consequently to lower employment rates. The family allowance policies might shape households' fertility decisions and have an indirect effect that way. However, the effect of policies on fertility can be expected to be fairly limited (see Olmsted, 2003: 87–90) and thus even smaller with regard to women's employment. Thirdly, the relatively weak operationalisation might mean that a more encompassing variable such as state Islamisation more effectively taps into the overall policy climate. In short, policies might have indirect effects, but the expectations are not strongly supported (see Box 6.8).

Lastly, democracy was expected positively to influence women's employment, mainly through policy-making. The raw association with women's employment (Table 6.1) shows that women in the most democratic countries in the dataset have 37% higher odds of employment than women in the least democratic country. However, including the state institutionalisation of conservative Islam takes away that effect for my sample of 28 countries, in which the two variables overlap substantially.[74]

Overall, the results for the political variables certainly indicate that family policies and benefits, as well as state structures, all relate to women's employment, and that they relate to women's employment in the expected direction. However, the results from these analyses are too ambiguous to draw strong conclusions about the influence of state structures and policies measured by the variables in this thesis. More attention for these kinds of factors, using better operationalisations and more cases, could shed more light on the possible influences of policies and polities.

6.8 CONCLUSIONS: OVERALL RESULTS

6.8.1 SUMMARY

Summarising, of the nineteen hypotheses formulated in Chapter 3, eleven are rather unambiguously accepted in this chapter (see Box 6.10). The hypothesis on economic development is supported as well, but aside from the hypothesised positive effect there seems to be a negative effect coming from economic development. On four other hypotheses, the results do suggest an influence, but the results are less robust. Lastly, three hypotheses are provisionally rejected. For these, I found no to hardly any proof that they have a general effect on women's employment in the 28 countries. This is not to say, that these factors (FDI, public sector size, and democracy) cannot have an effect in a certain context;[75] however, based on the data used here no patterns are found that broadly hold.

74 In a model with all micro and district-level variables and only democracy at the country level, democracy is positively and significantly related to women's employment. However, when state Islamisation is included the effect disappears and a model with only state Islamisation decreases the country level variance more strongly than the model with only democracy. It could be argued that democracy leads to less state Islamisation, but given the way the two variables are measured, this is unlikely.

75 A clear example are the cuts in the public sector, which is found to important in Egypt, both in Chapter 10 as well as the literature (Assaad, 2003; Moghadam, 1998; Nassar, 2003).

76 Strictly speaking coefficients at the country level cannot be compared, because the variables are not included in one multivariate model. However, multiplying the bivariate regression coefficients by the range of the variables shows that the influence of state Islamisation is larger than any other effect (at least by a factor of 3.3). Furthermore, using a backward deletion method it was the only variable at the country level that shows a robust significant effect and is thus included in the final model.

77 For each variable the full range on this variables was multiplied by the coefficient. Based on those coefficients it is concluded that education has the largest impact. It is also larger than the coefficient for the control variable age, for which the variable and its quadratic terms should be taken together. The range with the maximum differences is then between the ages of 15 and 39. Over this range the difference in logged odds is about 1.8.

Of the five groups of variables (1: household care and economic needs; 2: labour demand creating opportunities; 3: matching demand and supply; 4: societal and internalised norms; 5: policies shaping needs and opportunities) the only cluster for which generally little or weaker relationships were found, is the one on policies and political institutions. For several reasons it was also the one for which the weakest effects could have been expected to be found. Firstly, the theorised causal mechanism from policies to women's employment is the one with the most steps or linkages. This causal distance weakens the overall effect. Secondly, statistically speaking, the limited number of countries in this study prevents that many country-level variables' effects are robust and recur across models. Thirdly, of all hypotheses presented here, the ones on policies are the ones least systematically tested across countries and thus little comparable data on specific policies related to women's employment are thus available. Other authors often fall back to very general concepts and data. However, I was not interested in the general status of women in these countries, accordingly the use of general measurements – the percentage of women in parliament, the Gender Development Index, the Gender Empowerment Measurement, and CEDAW ratification – as is done in others studies (e.g. Blackburn, Jarman & Brooks, 2000; Donno & Russett (2004), Fish (2002), Gray, Kittilson & Sandholtz, 2006; Tzannatos & Kaur, 2003) would not have helped to solve the problem of measurement here. With this in mind, the presence of some effects for these variables can be regarded as a half-full glass situation instead of a half-empty one, as far as I am concerned.

6.8.2 MAJOR DETERMINANTS

Regarding the second general research question of this thesis – Which micro-, meso- and macro-level factors are the (major) determinants of women's employment in Muslim countries, and how do they influence women's employment? – I have reserved the issue of which factors are the 'major' or most important ones until now.

To answer this question, I should start by making clear what my criteria are for determining which factors are most important. At the core of the answer is the perspective one takes in asking this question. Firstly, from the explanatory perspective (which is dominant in this study), the most important factors are the ones with presumably the largest and most certain influence on women's employment likelihood. This means that the statistical significance and (standardised) effect sizes are important. A second – more policy-making-oriented – perspective also takes into account whether an intervention is possible to manipulate the explanatory factor. For instance, educational attainment levels are easier to change than internalised values, or, more extremely, the geographical location of a country. I will discuss which factors are most important based on the first view, but depending on the reader's interest, the second perspective might be kept in the back of one's mind.

At the country level the conclusion is rather simple. The only robust result was found for state institutionalisation of conservative Islam, and this variable also shows the largest substantial influence in the bivariate analyses. Moreover, the remaining country-level variance was lowest for this variable in the bivariate models. That this variable is most important indicates the precedence of policies and political institutions over economic characteristics at the country-level.[76] At the district level, economic factors turned out to be much more important. Together with the variable meant to measure the norms on the public presence of women, the size of the service sector and the non-employment of men have the greatest influence. The impact of the other variables seems smaller, mixed, or less robust.

At the micro level, it is education that seems to stand out. Based on the logged odds coefficients, higher education is the most important.[77] Other important variables are: living in a city, having a spouse, having an agriculturally employed partner, and the age difference between partners. It could be argued, however, that the frequency of a characteristic should be taken into account. For instance, tertiary education increases women's employment likelihood tremendously, but less than 7% of the women have reached such an educational level. Given the coefficients and the occurrence over the variables, education, having a spouse, and living in a city are candidates for being most important. The leverage of the last two is increased by the 'secondary support' of the results for, respectively, the presence of a working-age male

Table 6.5 Relative influence of groups of micro-level variables

Sheaf group	Coefficient	Standard deviation	Standardised coefficient (Influence for one standard deviation on x)
Children	1	0.12	0.12
Breadwinner	1	0.39	0.39
Education	1	0.70	0.70
City vs agrarian	1	0.63	0.63
Values	1	0.08	0.08

Note: These coefficients are based on the weighted sample.

78 Sheaf variables are created by multiplying the values on the original variables with the coefficients for those variables and adding these up. Using these sheaf variables in a MCMC model with 5,000 iterations, indeed shows that the coefficients all come close to 1.000. They vary between 0.98 and 1.01. In an IGLS model the coefficients show much more deviation from 1.000.

household head and the difference between women with a partner active in agriculture and other women, both having a negative effect.

To further asses the leverage of the different groups of micro-level variables, I have created sheaf coefficients for five different groups of variables – (1) children, (2) partner and male working age breadwinner, (3) education, (4) living in a city and the dummies for having a partner with a agricultural and upper white collar occupation, (5) the value proxies – by multiplying the variables' values with those variables' coefficients and adding these up. Sheaf coefficients can be used to assess the relative impact of a group of variables by taking them together and studying the standardised regression coefficients. This is mostly used to compare the impact of a factor for which several dummy variables are included to other factors, but can be applied to the question at hand here (see e.g. Whitt, 1986). Rerunning the analyses with these newly created variables leads to a model in which for each of the sheaf variables the coefficient is about 1.000.[78] The new variable with the highest standard deviation has the largest influence, because a change of one step on the independent variable is most easily accomplished on that variable. This exercise shows that education and the combination of living in a city and partner's occupation are most important (see Table 6.5). Since the latter is slightly less influential and not only includes agricultural occupation but also the upper white-collar effect, it seems safe to conclude that education is indeed most important at the micro level, closely followed by the difference between an urban vs. rural environment.

6.9 REFLECTION AND DISCUSSION

In this section, the broader implications of the results will be discussed. Firstly, I will analyse the implications for the theoretical framework and literature on women's employment in Muslim countries. Secondly, I will highlight how the results lead to new questions and how they relate to the following chapters.

6.9.1 THEORETICAL IMPLICATIONS

Three aspects of the general theoretical framework (Chapter 2) have been tested in this chapter: the levels, their interrelatedness, and the conditions of needs, opportunities, and values.

DISTINGUISHING FIVE LEVELS OF ANALYSIS

First of all, the results have shown that characteristics of units found at different levels, are influential. Women's own characteristics (e.g. human capital, values) and the characteristics of her household (e.g. children, income, partner's values) are clearly related to women's employment likelihood and both these theoretical levels should be taken under consideration when theorising on women's employment (see also Wolf, 1990). Of the theoretical meso and macro levels, the sub-national district level seems to be more important with regard to economic and cultural factors than the other two (men's non-employment, service sector size, norms on public presence). Together with the result found for urbanisation (living in a city is more important than living in an urbanised district), this result stresses the importance of proximity. Contextual effects are often strongest when the contextual level is closest to women. Focusing only on the country level, can easily lead to a type II error: a false negative (rejecting a hypothesis while it is true). Testing hypotheses at lower contextual levels, however, might correctly lead to accepting the hypothesis. At the national level, policies seem more relevant than economic characteristics such as GDP per capita, which is in line with the specific expectation regarding the locus of policy-making at the national level.

Least attention was paid to the global level, and the included variables from that level solely showed a correlation in the bivariate analysis. Little support for an indirect top-down influence through labour market structures was found. A more systematic assessment of the influence of different forms of foreign investments in developing countries on different aspects of women's economic position is needed. It seems that it is not just the amount invested that counts; what kind of investment is done and in which sector, might be critical as well. In addition, some processes – such as FDI – might have no general effect but can still impact women's employment in a certain context, in specific countries. Chapter 10 pays more attention to understanding global influences.

79 While it is not surprising that there are more household structures that shape economic needs, it is surprising that there is so little attention for this. One reason I expect to explain this, is that most studies start reasoning from the variable level and think why marriage might be important. In this study, I started reasoning from an overarching theoretical framework and then descended to the variable level.

INTERRELATEDNESS OF LEVELS

In Chapter 2, I have discussed four ways in which district, country, and global characteristics can be related to women's employment. In this chapter direct and indirect top-down effects and multilevel spuriousness relationships have been studied and found.

For several variables, the results suggest the existence of multilevel spurious relationships. For instance, the service sector size has a direct top-down influence, but part of its effect found in the contextual-level-only models seems spurious. Not controlling for micro-level differences can thus lead to wrongly thinking that a causal relationship exists where it is in fact spurious. As described above, unilevel approaches can also lead to a false negative. Consequently, it is virtually impossible to estimate the direction of possible biases if not using multilevel models including the relevant micro-level factors.

Ignoring the distinction between direct and indirect top-down influences can have rather important consequences for interpreting the results as well. However, the distinction between these two types of interrelatedness is sometimes hard to make. For instance, I have found a direct effect of state institutionalisation of conservative Islam, but this does not mean that its effect is a direct top-down influence. It only means that my models did not contain indicators that are part of the causal mechanism through which state Islamisation has an effect. That it is nonetheless helpful to distinguish between these two types of interrelatedness has been nicely illustrated by the results for economic development. In Chapter 3, five possible mechanisms were outlined describing how economic development might influence women's employment. Comparing models including (different sets of) micro and/or macro-level variables supports three of these. Firstly, a truly district-level effect is found through the creation of jobs. Secondly, a indirect top-down effect through educational achievement is found. Thirdly, the 'residual' negative effect is in line with the expectations about the negative indirect top-down effect through the economic needs of the household. For values no indirect top-down effect was found, but an influence was registered through district-level norms. No evidence was found or an effect through fertility.

The fourth form of relatedness – 'embedded relatedness': a meso- or macro-contextual factor shaping the micro-level relationship – was not empirically studied in this chapter. It will be given particular attention in Chapters 7, 8, and 10.

NEEDS, OPPORTUNITIES, AND VALUES

While this chapter has focused on factors already discussed in the literature, it is not a simple repetition of existing work. On the contrary, the framework of needs, opportunities, and values informed the inclusion of alternative measurements of often-used factors to test the underlying mechanisms in more detail, and the framework developed here helps to understand results that are contradictory to results in the literature.

With respect to including alternative measurements, the inclusion of marital status in this study is not unique (see e.g. Glick & Sahn, 1997; Gündüz-Hoşgör & Smits, 2008; Hirschman & Afghanjanian, 1980; Khattab, 2002). However, the studies on Muslim countries that discuss why having a partner leads to lower employment levels, all combine different explanations such as the need to care for children, lower economic needs, and the partner prohibiting labour market entry (Gündüz-Hoşgör & Smits, 2008; Hirschman & Afghanjanian, 1980). In this study these effects are disentangled (theoretically and empirically), and the results suggest that the economic needs argument is most important. Consequently, it will be interesting to look for other family structures determining this need. I therefore included the variable indicating whether or not the head of household was a working-age man, and this seems to support the existence of the causal economic needs causal mechanism.[79]

Similarly, at the macro-level, studies that focus on Islam and women's employment tend to include a country's percentage of Muslims to measure the possible influence of Islam (see e.g. Clark, 1992; Dollar & Gatti, 1999; Haghighat, 2005). The framework applied in this study also includes religion, but it draws attention to religion as just one source for sets of values, needing a means of communication by which these values might influence women's employment (institutionalisation, norms, internalisation). In that spirit, I have included a

Table 6.6: Coefficients of different measurement of religion in a country

	(1) Table 6.2, Model 4	(1) + % Muslims		
Variable	**Coeff.**	**Coeff.**	**Full range**	**One s.e.**
State institutionalisation of conservative Islam	-0.428 ***	-0.208 **	-1.24	-0.38
Percentage of people being Muslim	-	-0.014 ***	-0.88	-0.28
Country-level variance	1.062 ***	1.059 ***	-	-

Note: These coefficients are based on a model of which all specifications are the same as Model 4 in Table 6.2. The only difference is that in the second model an additional variable is included.

80 Haghigat (2005a; 2005b) also includes both the percentage of Muslim and a variable on the strength of religiosity of the state (all religions) and finds negative effects of both, with a somewhat stronger effect of the first. The sample in that study however includes 135 countries and the political-religious variable included more levels of conservatism captured under one heading. For instance, Norway and Germany are coded as religious governments because they identify with Protestantism, but in my reasoning they would get a low score because conservative religious restrictions are relatively absent from the state structure.

variable that measures the institutionalisation of Islam. This variable appeared to be an important explanatory factor and the results supported the idea of the importance of values. Including a population-based variable (percentage of Muslims) in the models used here also shows a statistically significant relationship. However, state Islamisation seems to be greater (see Table 6.6).[80] Moreover, the theoretical argument for using the percentage of Muslims is still underspecified. Ideas about what these values concern fall back on humdrum, such as "Islam is more conservative", and how this influence is exerted not specified beyond "through culture". In addition, there are serious methodological problems with the usage of the 'Muslim percentage' variable at the country level, because the values on this variable are highly clustered in geographical patterns, which means that the variable might measure many other things related to this geographic clustering (e.g. colonial history, Arab culture, postcolonial relations, and the amount of sand in a country). For more discussions and tests on the influence of religion, see Chapter 9.

Several of the other results in this study do not refine existing knowledge, but simply contradict it. Firstly, based on ideas of rational cost-benefit reasoning on the part of women and their families, several scholars expect primary education to have a negative effect on women's employment, because the opportunity costs of employment rise more with attaining at least primary education than the benefits of a job do. The analyses of Aromolaran (2004) and Kuepie, Nordman & Roubaud (2009) tend to support these ideas for Nigeria and Sub-Saharan West Africa (see also Lincove, 2008). I have found a very clear positive effect of primary education in all 28 countries. In terms of needs, opportunities and values, the positive net result of primary education is to be expected. Additional education does not increase the care needs of the household and working can help to meet the economic needs of the household, while a higher education level simply creates more opportunities on the labour market. For instance, primary education opens the door to jobs in which literacy is required. The empirical results in this study seem to confirm this. Secondly, in the analyses performed here, several indications were found that economic development might have a negative effect on women's employment. In the literature, however, it is generally accepted that economic development only has a positive impact on women's (non-agricultural) employment (Abu-Lughod, 1998; Inglehart, 1997; Jaquette, 1982; Lenski & Nolan, 1984; Lerner, 1958; Mernissi, 1987; Moghadam, 1998, 2003, 2007; Rukhsana, 2004). Applying the needs, opportunities and values framework logically leads to disentangling different processes influencing women's employment that stem from economic development. One of these processes does entail a negative influence because economic household needs decline when a country and its households become richer. My framework and analyses have led to a better understanding of the mechanism behind 'old results', in which the effects of economic development are collapsed.

6.9.2 ROADS TO FOLLOW

The framework and multilevel modelling have highlighted some avenues for future work on data and methods beyond the scope of this present thesis, and the results logically lead to the themes of the four upcoming chapters.

QUALITATIVE AND QUANTITATIVE DATA ENRICHMENT

For some factors, the analyses in this chapter have resulted in less robust conclusions. In most cases this is directly related to the measurement of the variables. At the country level, the least strong results were found for FDI, public sector size, and the two policies variables. These variables were also the ones for which the weakest measurements have been used. This is a problem for many cross-sectional country-comparative studies that have to make use of existing data. In this study, I have used several new measurements at the country level (state Islamisation and the allowances variable), and the results suggest that this is the start of a fruitful endeavour.

Secondly, the less robust and less clear result at the micro level might also be traced to data issues. At this level, there are for example variables that were expected to tap into values, which show important differences between estimation techniques (Appendix 6.1). These variables are behaviour-based proxies for values. Obviously, there is a concept-measure inconsistency and

81 All results do point in the expected direction, but the size of coefficient differs and the statistical significance is not very robust across estimation techniques.

this 'noise' might explain the less robust results.[81] Similarly, the partner's occupational status is a relatively weak operationalisation of the socio-economic network a woman has access to. While the DHS, PAPFam and IPUM surveys are unique in their coverage of issues and countries, further integration and combination of surveys is desirable. Only then is it possible to test (inter) relationships in more detail. The results in this chapter only underscore the importance of doing so.

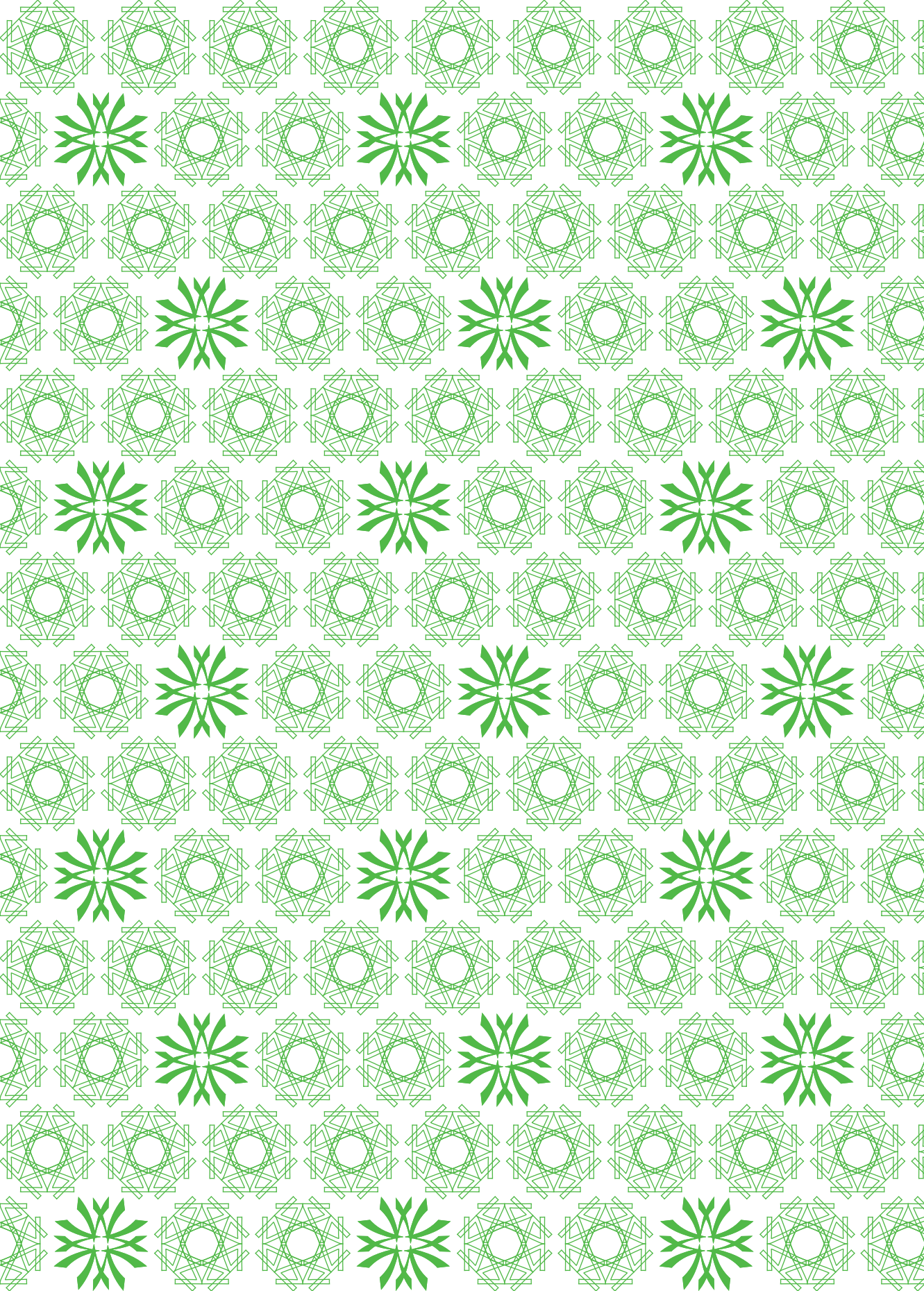
A third issue is that this study has found important influences manifesting themselves at the district level. These were mainly of an economic or cultural nature. Including this level with 383 units is rather unique, but it has its limitations. Cross-sectionally, no data whatsoever are available on policies or any other variable for all these districts. As Chapter 9 will show, policy- and culture-related factors based on external data also seem influential at the sub-national level, and it can be expected that sub-national differences are rather relevant in federal countries. To test and understand macro-level processes influencing women's employment, much more data collection at different sub-national levels is needed.

Lastly, for some variables, an effect has been found, but we should be cautious with interpreting the results singularly in favour of the theory. This is particularly the case for the gender-role related variables such as having children, the size of the (light) manufacturing sector, and male non-employment. For instance, I found a strong impact of male non-employment on women's employment, but based on the tests in this study it is impossible to tell whether non-employment has a (dis)similar effect on men's employment. If the effect is similar, it is a general labour market effect and not so much a gendered labour market effect. Broader models including interactions with sex are needed to truly understand how and to what extent labour market structure influences are gendered.

Each of the data-related problems addressed above can be solved in studies focusing on one level, one country, or one domain. I have shown, however, that taking the different levels, countries, and domains together is crucial in understanding what shapes women's employment in Muslim countries. Thinking this completely through, means that the strength of a study is in the end determined by its weakest data (availability). Therefore, collecting and linking more comprehensive data in terms of levels and domains is crucial for on-going development of our knowledge about the influences on women's employment.

FURTHER THEMES

Firstly, the analyses in this chapter have also informed the selection of the issues to be investigated in the following chapters. In this chapter, I have shown which general relationships seem to exist in these 28 Muslim countries, but how effects might differ by context has so far been ignored (Chapter 2's embedded interrelatedness). Now it is clear that education is the most important micro-level factor, this will be the focus in Chapter 7 on embedded interrelatedness. Secondly, in Chapter 8, I will further use the framework to translate ideas about patriarchal systems to (new) household-level hypotheses about the influence of other household structures on women's employment. Thirdly, in discussing women's position in Muslim countries, Islam by definition plays an important part. I have shown how it can be treated as a source of institutionalised values, but that is only one way religion-based values might influence women's employment. This approach stands in stark contrast with the more 'civilisationist' or simplistic approach to the influence of Islam. Chapter 9 goes into that debate, and theoretically and empirically compares my approach to the civilisationists' approach. Finally, this chapter has found a complex system of influences for economic development (often used to measure the level of modernisation). At the same time, little attention has been paid to the global level and no effect has been found. What does this say about the influence of globalisation and the idea that women's position will change for the better if we let time do its job? This complex of relationships – including temporal embeddedness and a stronger focus on how the international level plays a role, partly working through the sub-national influences – will be studied in greater detail in Chapter 10.



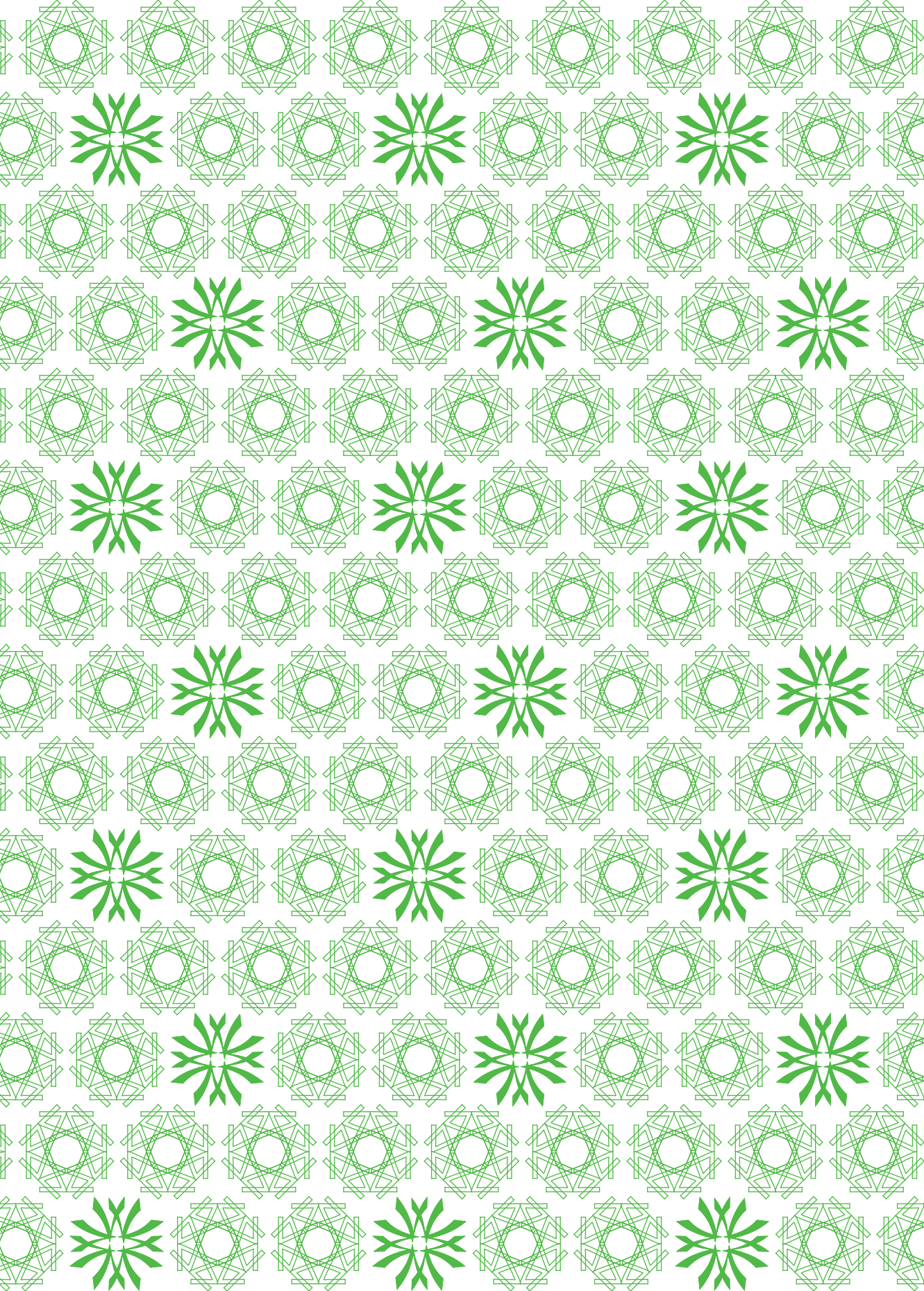
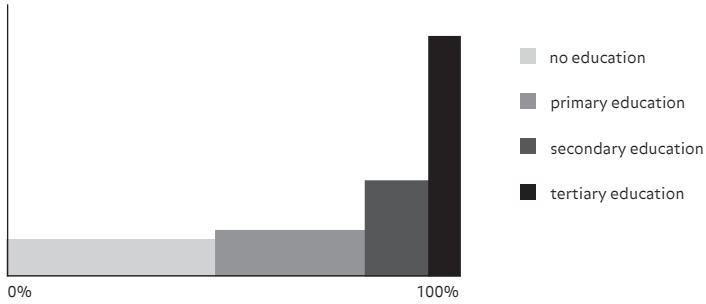


Figure 7.1 Employment and the percentage of women with that educational level
Estimated probability on employment



82 The probabilities are based on the 'final' regression equation in Chapter 6 (see also Figure 6.2).

83 In addition to Figure 5.9, this indicates that the number of women that are non-agriculturally and gainfully employed is roughly the same for each of the educational groups as indicated by the equally-sized rectangles: women without education are clearly less often employed than for instance secondary or tertiary-educated women but there are many more women without any education. Again, a focus on only the higher-educated women, would disregard about three-quarter of the women gainfully active in the non-agricultural sector. The focus in this chapter will therefore be on all educational levels.

Chapter 7

Theme 1: Embedded interrelatedness
Variations in the effects of education in 28 countries

7.1 INTRODUCTION

Chapter 2 has introduced the idea of embedded effects in order to draw attention to the questions whether and why effects on women's employment differ between areas: contextual characteristics are expected to shape the influence of explanatory factors, and these contextual characteristics differ from area to area. In this chapter, these notions are applied to the effects of education on women's employment.

The previous chapter has shown that educational attainment is a major influence on women's employment. Across the 28 Muslim countries studied in this thesis, women's odds of employment increase by 53% if a woman has primary education instead of no education. For secondary education this is 203%, and for tertiary education 1,212%. In Figure 7.1 this is translated into the probability of being employed,[82] whereby the relative number of women with a certain educational level is depicted through the width of the blocks.[83] There are two reasons why this explanatory factor is particularly interesting to focus on in this chapter. Firstly, because of the large effect of education, differences in that effect can have major implications for a woman's economic position. It is relevant to understand under which circumstances additional education pays off most. Secondly, hardly any ideas are formulated in the literature about how micro-level effects are embedded in the context. The literature on education is the most promising in this regard, because some thoughts on context specificity are found in that literature, which can serve as some bases for this thesis (e.g. Abu-Lughod, 1998; Acar, 2006; Jansen, 2006; Tansel, 2002). By reinterpreting and elaborating these ideas, using the framework of this thesis, concrete expectations can be formulated and tested. In turn, the results for education might inform theoretical ideas about the embeddedness of other micro-level factors.

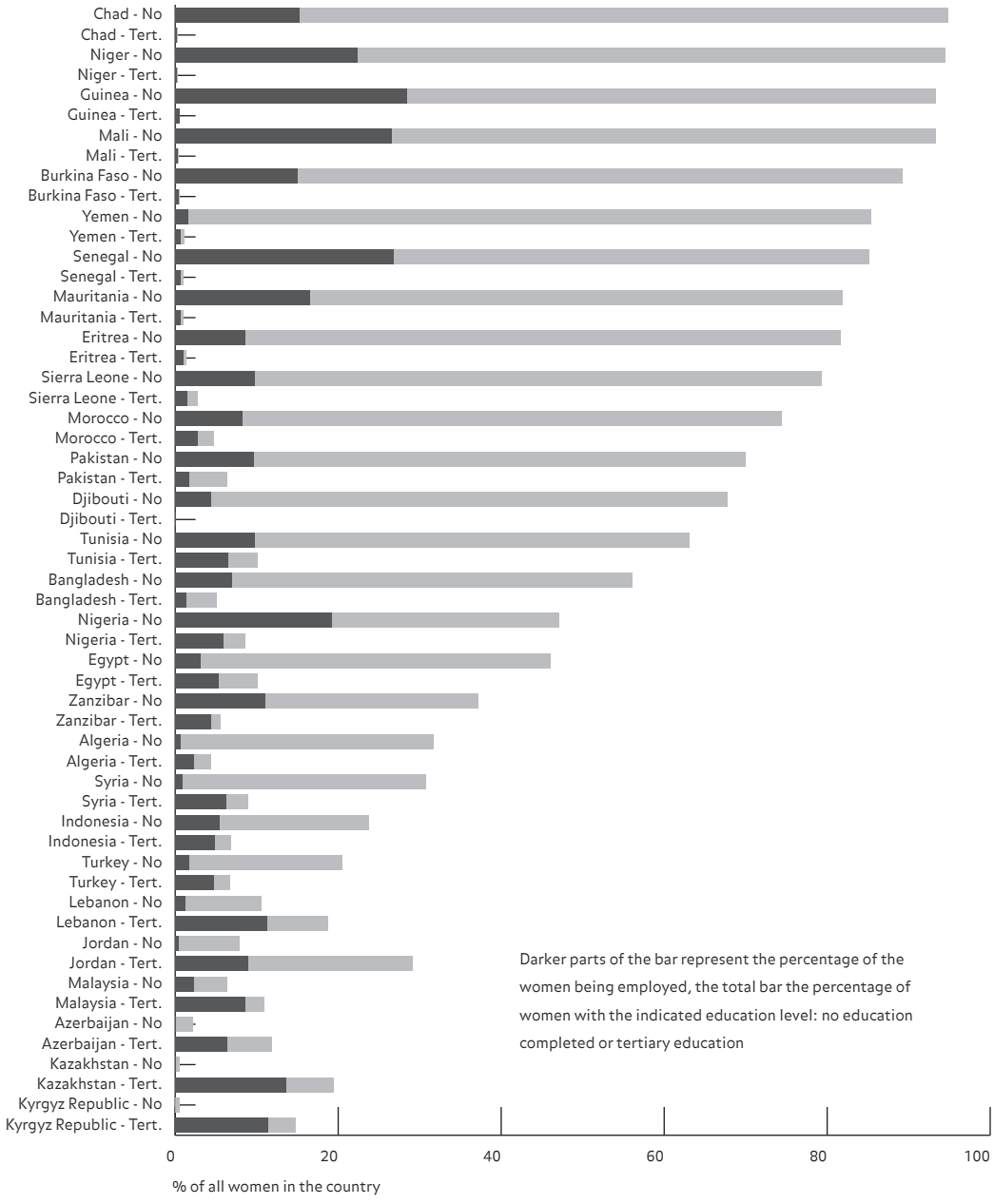
In this chapter, I will start by briefly discussing the differences in education and effects across countries and district (Section 7.2). After I have established that education indeed has different effects in different areas, a short literature review is given in Section 7.3, to explore the existing literature. Section 7.4 formulates expectations regarding the different effects. The results of interaction models are presented and discussed in Section 7.5. In the concluding part (Section 7.6), these results are then related to the general framework and questions of this thesis.

7.2 THE EFFECT SIZE OF EDUCATION

Before it can be studied why the effect of education varies across areas, it has to be established whether and how it does. A first, very general way to look at the possible different effects of education is visualised in Figure 7.2. For each country the bars present the percentage of women that have not completed primary education and that of women that have at least some tertiary education. The darker parts of the bars represented the employed women within these groups. For example, in Chad, Guinea, Mali, and Niger, more than 90% of the women have not finished primary education. However, in Guinea 28% of all women have no primary education but are still employed; in Chad this is true for only 15%. For tertiary education, such differences are found as well: in Jordan, almost 30% of all women have enjoyed at least some tertiary education, but the number of women that has tertiary education and is employed is lower than in Lebanon, Kazakhstan, and the Kyrgyz Republic.

If the effects of education were the same across countries, this would be reflected in the size of the darker bars relative to the total bars. The change in this ratio between education

Figure 7.2 Employed women by educational group and country



84 It should be taken in account that 'no education' is set to zero, which automatically leads to fanning out if there are different effects across contexts.

85 The logged odds on employment are estimated used the regression equations derived from the random slopes models, all variables fixed (including the constant) with exception of the three education dummies. The logged odds were estimated for each country and district and the results of this are graphed. The figures are thus controlled for all other variables in the model (see Chapter 6).

86 Although the review of Pettit & Hook focuses on industrialised (OECD) countries, their conclusion can be easily extended to women's employment in Muslim countries or developing economies, a smaller and also fragmented literature.

levels should then be similar across countries. For instance, the relative size of the darker bar would for instance triple when comparing uneducated and tertiary-educated women. Such a consistent pattern is not to be found, indicating that the effect of education at least differs across countries. Take Nigeria and Yemen. In Nigeria, relatively many women without education are employed (>40%) and for tertiary-educated women this is about two thirds, while in Yemen hardly any woman without education is employed, but about half of the small number of women with tertiary education is employed in Yemen. This indicates that the effect of education is relatively small in Nigeria when that country is compared to Yemen.

These figures are based on statistics that are not controlled for other important characteristics the women might have, which might (partly) explain these differences, and these percentages only present country-level differences. One way to assess whether education effects differ per macro-level context (after control for other relevant factors) is to re-run the final model as presented in the previous chapter, but now with random slopes for education at the district or country level. The results of these analyses are shown in Table 7.1, and it is clear that all the variances are statistically significant. The effects of each level of education on women's employment differ substantially between countries as well as districts. The positive coefficients, which become larger for each level of education, furthermore indicate that the effect is fanning out (see Jones, 2007): the further the educational level from the reference category, the larger the differences in effect between areas.[84] This is also one of the conclusions that can be derived from Figure 7.3, which graphs the employment likelihoods (in logged odds) by educational level, per district and per country.[85] It shows that though a few countries and districts show some (minor) negative effects of education, the effects are positive in almost all areas. The maximum difference between tertiary and no education is about 5 logged odds at the country level and somewhat over 6 at the district level.

So far, I have shown that education has a strong and positive effect on women's employment in general, and that the effect is not the same everywhere. Interesting as this finding might be, it is plainly not informative. To transcend killjoy remarks, such as 'the effects of education differ', it is pivotal to understand why the effects of education differ, and the subsequent parts of this chapter therefore focus on the question: What factors might explain the variance in the slopes of education?

7.3 LITERATURE OVERVIEW

In their 2005 review of the literature on women's employment, Pettit & Hook aptly summarise the condition of the field (780): "The polarization of research on women's employment into traditions emphasising either micro or macro determinants of women's employment ignores the relationship between individual employment decisions and institutional conditions".[86] Consequently, there is hardly any systematic assessment of, or theorisation on, how the effect of education depends on the macro-level context, something already observed by Pampel & Tanaka (1986: 601) in their classic study about the relationships between economic development and female labour force participation: "Even though empirical models have not tested for interactions, there are several reasons for supposing they exist". A closer look at the studies discussing women's employment in Muslim countries lays bare some of these reasons, these ideas about embedded effects.

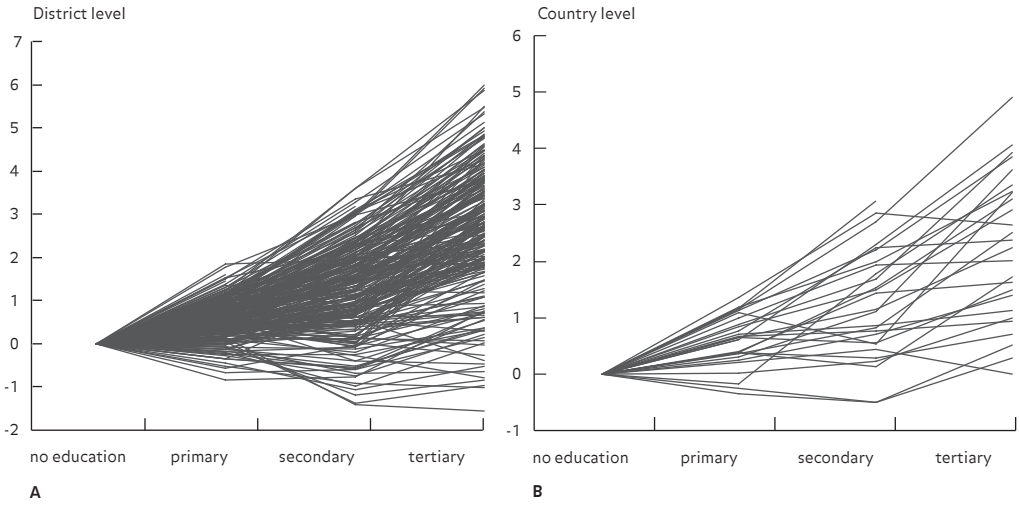
At least four authors link the effects of education to the cultural context,[87] more specifically the strength of a woman's role as mother and housewife, but each in a different way. More stringent cultural norms are related to the influence of education through employer preferences, through household restrictions, and what is taught at school. In what can be called the first line of reasoning that connects education to culture, Abu-Lughod (1998) and Shakry (1998) refer to the hybridisation of modernisation, which signifies that modernisation can accommodate more traditional ideas in different combinations. Shakry (128–9) discusses colonial Egypt specifically, where the education of women was seen as important to elevate their moral and material position. However, the domain of women was not reconstructed and women remained confined to the private sphere. Translated, this means that even if women's educational level improves, society (including employers) may still uphold the idea that a woman's place is in the private

Table 7.1 Variance coefficients of the effects of education on women's employment

Variable	Slope coefficients of education		Variances of slopes	
	B-coeff.	s.e.	Variance	s.e.
Country-level random slopes				
Education (ref = less than primary completed)				
primary completed, secondary not	0.478 ***	0.079	0.261 ***	0.080
secondary completed, no tertiary	0.934 ***	0.135	1.161 ***	0.347
at least some tertiary	1.828 ***	0.165	2.145 ***	0.669
District-level random slopes				
Education (ref = less than				
primary completed, secondary not	0.639 ***	0.039	0.338 ***	0.042
secondary completed, no tertiary	1.493 ***	0.078	1.256 ***	0.129
at least some tertiary	2.925 ***	0.107	2.394 ***	0.226

Notes: (1) * p<0.05 ** p<0.01 *** p<0.001; (2) These coefficients presented here are based on models of which all specifications are the same as Model 4 in Table 6.2. The only difference is that for the three education dummies the slopes were allowed to vary at the macro-level context. The variances of these slopes for the district and country level are derived from two separate models.

Figure 7.3 Effects of education on employment



87 These authors do not use the terms of interactions or embedded interrelatedness, but what they have written can be interpreted as such.

88 This is partly reflected in the shrinkage of the effect of education, comparing the bivariate and multivariate models in Chapter 6.

sphere, and thus not in organisations in the public sphere, such as companies or factories (see also Fergany et.al., 2006: 91).

Abu-Lughod (1998) also can be grouped with Acar (2006) along a second line of reasoning which expects education to change women's internalised gender roles and desire to work. These are however then expected to change less if education happens in a more traditional environment (see also Vella, 1994). For instance, if education is provided from the perspective of Muslim reformers such as Thanawi (1863–1943), educated women cannot be expected to desire work. In the words of Abu-Lughod (19), Thanawi saw a future in which women will be empowered, literate and educated. These self-disciplined and proper Muslim women would then be able to become modern housewives (i.e. using recipes and weighing and measuring ingredients). Women receiving education in this context can be expected to be less inclined to enter the labour market. In line with this, Acar (2006: 103–4) argues that in Turkey more traditional education teaches different skills: "religious education … reinforces stereotypical gender roles and offers very little in terms of income-generating skills to women".

In a third line of reasoning, Jansen (2006) directs attention to the position of other household members in translating education to employment. In her study on Jordan, Jansen (48) notes that: "The rise in female education had hardly any effect on women's economic participation … While most parents support their daughters' education, far fewer allow them to use their skills in jobs. At times, girls are annoyed by these limits put on their ambitions, but they usually comply with their parents' wishes". In each of the three views regarding culture, the emphasis is on the (religious-motivated) traditional environment. These authors imply that the effect of education will be stronger in less traditional settings than in more traditional ones.

The second cluster of authors focusses more on the economic context. Both Tansel's study of Turkey (2002) and Pampel & Tanaka's cross-sectional study of 70 nations (1986) – including sub-Sahara Africa, North Africa, Asia and the Middle East – include economic development and women's labour force participation and discuss the possibility that the effect of education might differ according to the type of labour that is demanded during economic development. Pampel & Tanaka (601) argue that the pay-off of education decreases in more economically developed areas, because economic development will mainly increase the demand for female labour through home-based labour, and Tansel (11) also expects – without much further argumentation – that in the process of economic development the effect of education becomes smaller. These expectations are very general, but they do draw attention to labour market structures. Travelling a bit outside the literature on Muslim countries, we can for example find an India study of Rani & Schmid (2008) in which different effects of education on poverty are shown for different parts of the service and manufacturing sector. However, the theorising is again minimal on this point; it is expected that there is a difference between rural and urban areas, but it is not further explained why this should be so.

Overall, the information on the embedded effects of education on women's (gainful non-agricultural) employment is sketchy at best, even while a need for more knowledge about these effects was already identified over 25 years ago (Pampel & Tanaka, 1986). The focus is only on culture/religion and economics, not on policies, and it is not clear which types or levels of education are referred to. It is also not specified which aspects of the labour market structure are important in shaping the influence of education. To address these lacunae, I will in the following section formulate specific hypotheses for each of these three clusters (labour market structures, culture, policies) based on the logic developed in Chapter 2.

7.4 THEORISING THE EMBEDDED EFFECTS OF EDUCATION

In this thesis, in line with my notion of opportunities, I perceive education as a 'human capital' resource. Nevertheless, it is important to note here that education can be expected to influence women's values as well.[88] As the literature overview above has made clear, education's effect might differ because of its different effects on how much women want to find employment (Abu-Lughod, 1998; also Inglehart, 1997).Having said this, we turn to the expectations in the three clusters of macro-contextual factors (labour market structures, societal norms, and policies).

Figure 7.4 The education of women employed in different types of jobs

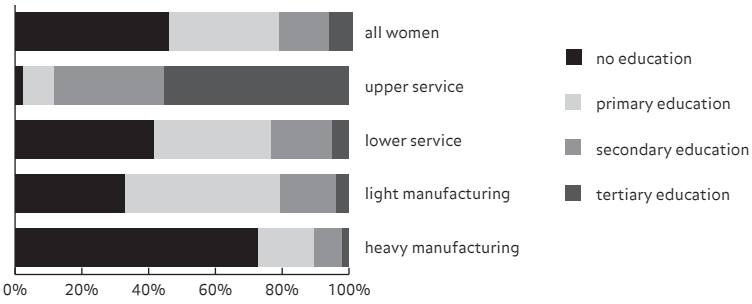
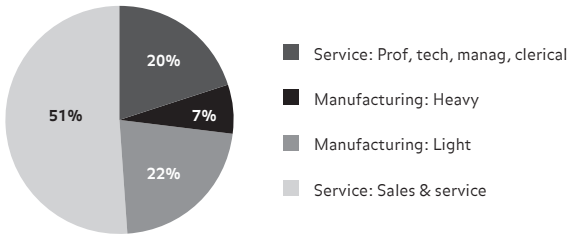


Figure 7.5 Women's employment by type of job



89 This seems in line with observations by others. For instance, for Zanzibar it is known that women are rather highly represented in construction (Eliufoo, 2007).

90 As discussed in Section 4.7.2, the datasets do not contain variables that exactly use these types of jobs as labels, so the figures presented here are approximations that should be treated as indications of the labour market structure, not the exact percentages of women in these positions.

7.4.1 LABOUR MARKET STRUCTURES AND THE EFFECTS OF EDUCATION

The labour market structure can be expected to be particularly important for the effects of education, because this structure determines the presence of suitable and desirable jobs and this in turn shapes the demand for women with certain educational achievements. In an area with many managerial jobs, the demand for tertiary education will increase. However, this does not automatically mean that the effect of being tertiary educated becomes larger as well. These effects depend on the overall balance between the labour demand and the supply of employees with a certain education and sex. Given working conditions and the perceived higher suitability of service jobs for women, I assume (ceteris paribus) that (see also Fergany et.al., 2006: 91):

1) Women prefer – if they can choose – a job in the service sector above jobs in any other sector.
2) Employers in the service sector will prefer higher-educated people as employees over lower-educated people.
3) Employers in the manufacturing sector prefer the cheapest labour.

Consequently, I expect that most higher-educated women, if they want to be employed, will find a job in their preferred sector; in the service sector. The data confirm this: 94% of the employed women with tertiary education are employed in the service sector, 78% in a 'professional, technical, managerial' or 'clerical' job. For secondary-educated women, these figures are 81% and 36% respectively.

Furthermore, it should be noted that in almost all of the Muslim countries, the number of jobs in the service sector turns out to be larger than the supply of tertiary-educated people. In my data, of all people (men and women, aged 25 to 97), 17.7% are active in the service sector, and 7.5% have tertiary education. Studying this by district shows that in all of the districts more people work in the service sector than there are tertiary-educated people. If only the service sector jobs in the categories of 'professional, technical, managerial' and 'clerical' are taken into account – thus excluding 'sales and services' – 90% of the districts have fewer tertiary-educated people than service sector jobs. Also excluding clerical jobs leads to a figure of 75%. In sum, people with tertiary education can most probably find a job in the most preferred sector in their own district, and employers have additionally to employ people with less than tertiary education.

With regard to the manufacturing sector, it is expected that more lower-educated women are active in that sector, not only because of employers preferences, but also because most tertiary-educated women will choose the service sector, and finally because lower-educated women have fewer opportunities in the (upper) service sector. This combination of factors makes it difficult to empirically prove the third assumption made above, but the data are illustrative in showing higher numbers of lower-educated women in manufacturing jobs (see Figure 7.4).

Besides the demand-supply balances discussed above, it will be relevant to know the general percentage of women present across the main sectors. Of all women who are gainfully employed outside agriculture, roughly a quarter is active in manufacturing and three quarters in the service sector according to my data (see Figure 7.5). Regarding the latter, 22% of women has a 'better' service sector job and 51% a 'sales and services' one. Overall, 93% of the employed women is active in the two sectors designated to be the most feminised: service and light manufacturing (see Chapter 3). Most (21) countries show similar figures (see Appendix 7.1). In Tunisia and Turkey, a large percentage (>40%) of women is active in light manufacturing (probably the clothing industry), and in Bangladesh, Chad, Djibouti, Yemen and Zanzibar the number of women in the heavy manufacturing sector is particularly large (>24%).[89] Nonetheless, the overall picture strongly suggests that the service sector is the preferred employer, light manufacturing the second best option, and heavier manufacturing labour a last resort (see also Chapter 6). This is also in line with Figure 7.4: the women with the most assets are found in the arguably most-preferred sectors.[90]

Now that the background to the hypotheses is clear, I will be able to formulate specific and testable hypotheses on the four labour market structure factors in this study: (1) non-employment, (2) the size of the service sector, (3) the size of light manufacturing, and (4) urbanisation.

In areas in which the non-employment of men is higher, the labour supply of preferred employees (men) is larger. Consequently, the demand for women is lower (see Chapter 6).

Box 7.1

7.1 To the extent that the male labour supply in a community is more depleted, the greater the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

7.2 To the extent that the number of jobs in the service sector in a community increases, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

7.3 To the extent that the number of jobs in the light manufacturing sector in a community increases, the larger the difference in women's probability of being gainfully non-agriculturally employed between primary educated women and women without education, and the smaller the difference between primary educated women and women with a higher education.

7.4 To the extent that the urbanisation of a woman's living environment increases, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed.

91 If there is a substantial number of higher educated but non-employed, this demand for higher-educated women is still expected to be low, but as said the demand for service sector jobs outnumbers the total number of higher-educated people.

However, higher-educated people are still preferred over lower-educated people (see above), and thus the demand for higher-educated women will stay relatively constant.[91] If so, this would mean that in areas with higher non-employment of men, especially lower-educated women would have more difficulty in finding a job while higher-educated women could still find work relatively easily. The effect of education is thus expected to increase, when the non-employment of men increases.

The size of the service sector is expected to have a negative impact on the effect of education. This may sound counterintuitive given the feminised nature of the service sector, but again the balance of labour and employer/employee preferences are crucial here. A larger service sector will increase the demand for female labour, particularly for higher-educated women. However, if all higher-educated women who want a job already have a job since there are enough service sector jobs for tertiary-educated people, an increase in the demand for labour in the service sector will lead to an additional demand for female employees with lower levels of education. Consequently, more lower-educated women will become employed, and the difference in employment between tertiary and other educational groups decreases.

Whereas it is relatively simple to predict the pull of the service sector, the influence of the light-manufacturing sector is somewhat more difficult to predict, because the workforce in light manufacturing is educationally more diverse (see Figure 7.4). About half has primary education, a third has no education, and the last 20% has at least completed secondary education. Compared to all women or to women who are not employed, primary- and secondary-educated women are overrepresented in manufacturing. Based on this, we might expect that particularly primary-educated women benefit from an increase in the size of the light-manufacturing sector. However, the 'in-between' preference for these jobs and the possible mixed preferences of employers (cheap labour versus educated labour) leads me to add that the underlying assumptions for this expectation are far more speculative than the ones discussed above.

In line with the expectations for service sector jobs, it can also be expected that the effect of education is smaller in more urban areas. More jobs are available there and the chances of women with lower education levels thus mainly increase. Higher-educated women will generally have less trouble finding a job, even if there are fewer jobs. In Box 7.1, the discussion above is summarised in four hypotheses.

7.4.2 CULTURAL NORMS AND THE EFFECTS OF EDUCATION

Regarding the function of education in transferring norms, it seems useful to distinguish between the different forms of education. In tertiary and to some extent secondary education it is to be expected that people are taught to think analytically and critically, to form their own opinions, at least to some extent. In elementary education, the focus will much more be on basic skills such as reading, writing and arithmetic. Consequently, the emancipatory function of higher (tertiary) education is already relatively large by nature of the type of knowledge and skills taught there, while lower education is less about reflection and more about learning by heart, which includes learning the norms that are dominant in the community.

Because of the general effect of higher education, women having enjoyed higher education can be expected to have a stronger desire to enter the labour market, even if the norms are less in favour of the public presence of women. These women have (partly) broken free from these norms. Moreover, employers in need of scarce higher-educated personnel might be less influenced by the societal norms than employers who can afford to choose men over women. For women with lower education the story is quite different. If the norms in society are more in favour of women entering the public sphere, I expect this to influence them considerably. These women are more influenced by the societal norms surrounding them and will more often act accordingly, and the same holds for employers. Consequently, the effects of education are expected to be smaller if the norms on the public presence of women are more in favour of women's labour market entry.

Similarly, norms regarding the role of women as caretakers can be expected to have the greatest impact on lower-educated women, and the least on higher-educated women. This would mean that the effect of education is greater in areas with more traditional norms, because

Box 7.2

7.5 To the extent that the presence of women in the public sphere in a community increases, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

7.6 To the extent that the dominance of traditional care roles in a community increases, the larger the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

Box 7.3

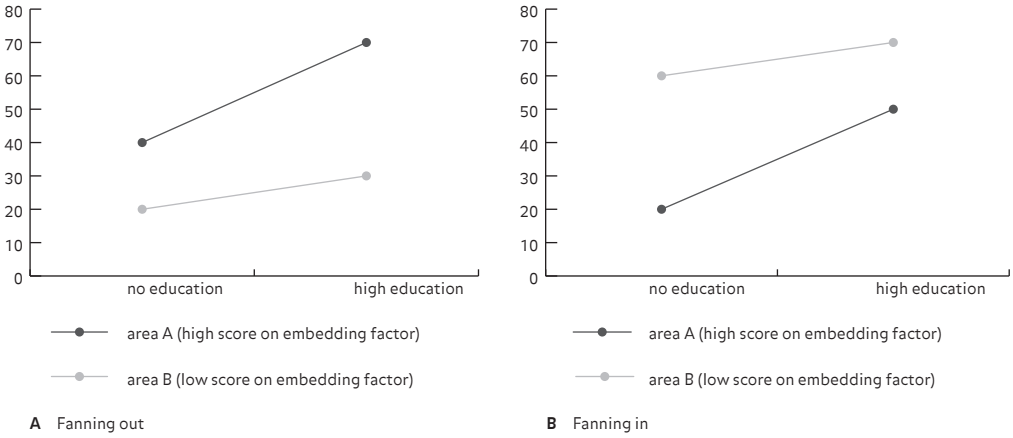
7.7 To the extent that the economic development in a community increases, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

Box 7.4

7.8 To the extent that traditional gendered family roles are more institutionalized in government policies, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

7.9 To the extent that the institutionalisation of conservative Islam into the state increases, the smaller the effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.

Figure 7.6 Illustrating similar interaction coefficients, 'different effects'



92 Once past this barrier, it is still expected that basically all tertiary-educated women can find a job. The effect of these policies is seen as having an impact on the first step in becoming employed: entering the labour market and not so much on becoming employed in which women's skills, network and resources as well as the employers values and demands become more important (see Section 2.3).

the lower educated have a relatively low employment level, while tertiary-educated women have employment levels similar to women in areas with less traditional norms. In sum, this leads me to formulate two further hypotheses (see Box 7.2).

Economic development as an embedding characteristic taps into both groups of factors discussed above (labour market structures and cultural norms). As the framework used in this study points out, both district-level value patterns and labour market structures are part of the container 'economic development'. This means that for economic development both embedded interrelatedness mechanisms are expected to apply: if economic development leads to value change in favour of entering the labour market, I mainly expect lower-educated women to be influenced positively; and if economic development leads to more jobs, this mainly increases the opportunities of women with less education. In both cases the effect of education decreases (statistically speaking) once economic development increases. These two mechanisms are complementary, since norm modernisation and job availability are positively associated. The hypothesis regarding economic development is provided in Box 7.3.

7.4.3 POLICIES AND THE EFFECTS OF EDUCATION

The last set of expectations about the different effects of education revolves around (culturally informed) policies that might shape the impact of education. Especially interesting are policies that regulate the flow between (educated) women and the labour market where the job opportunities are found. The effect of restricting women's job searches is expected to be fairly straightforward. The more formal restrictions in place – little access to public transport, having to travel with a mahram, no access to economic resources, the risk of bodily violation, stricter dress codes – the more women will not enter the labour market and will not become employed. Since most of these restrictions are applicable to all women, it can be expected that they hurt all who want to search for a job. Since higher-educated women are overrepresented in this group, they will relatively be disadvantaged the most.[92] Consequently, the difference between higher- and less high-educated women can be expected to decrease. In turn, policies that lift restrictions or facilitate the job search – such as childcare provisions or quota – can be expected mostly to benefit the higher educated. This general mechanism can be translated to two of the policy variables used in this study (see Box 7.4). The first is chosen because it includes policies and laws that formalise gendered family roles, such as to what extent the access to resources is limited to men or (male) heads of household. The second is selected because the institutionalisation of conservative Islam also includes institutionalising ideas on the position of women, such as stipulated in *Shari'a*.

7.5 MODELLING DIFFERENT EFFECTS

7.5.1 APPROACH

For the analyses, the final model from Chapter 6 (Model 4, Table 6.2) is taken as the starting point since it includes the necessary controls and variables, and was the strongest model presented there. To this model, the interaction terms with education are then added (see Jaccard, 2001). At first, this is done one by one, afterwards they are all included together. In the case of the 'traditional family policies & law' variable, the base term (the country-level variable) is added as well. The main coefficients are not very informative because they are only applicable to the situation in which the values on the base variables are zero. Because of this and because this chapter focusses on embedded interrelatedness (not on the main effect), I will only present the interaction coefficients here. The coefficients of the full model can be found in Appendix 7.2. In Appendix 7.3, the same model is presented using weighted IGLS estimation.

The interaction coefficients are all relative to women who did not finish primary education. In other words, the coefficients of the education dummies are relative to the intercept corrected for the specific district's or country's position. For instance, if the employment level of uneducated women in Area A is higher than in Area B (see Figure 7.6a, the difference between the points at the left), and Area B has a higher value on the contextual embedding factor, then a negative interaction coefficient indicates 'fanning out' and the difference increases (see Figure

Figure 7.7 Women's employment predicted, varying education and non-employment
Women's probability of employment (%)

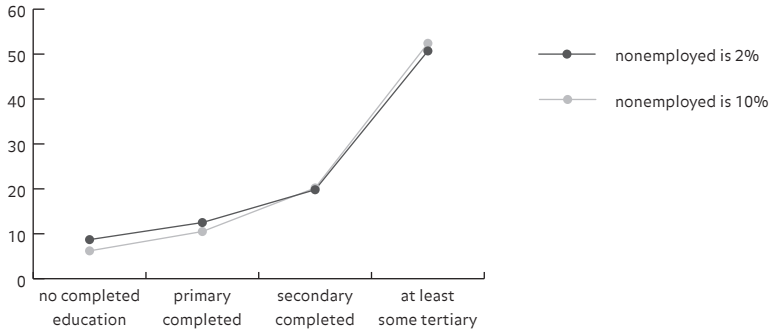
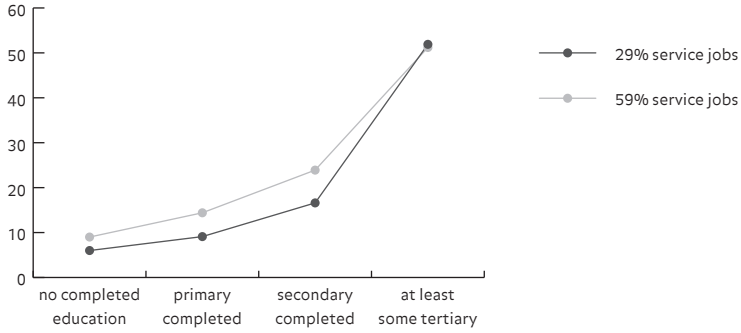


Figure 7.8 Women's employment predicted, varying education and the size of the service sector
Women's probability of employment (%)



93 Because I am only talking about dummies here, 'fanning in' is correct. In the case of two interval variables, it can be initially 'fanning in', with crossing slopes, and thus 'fanning out' after the cutting point.

94 The exception is the non-employment of men, because using this range would lead to figures that are either non-existent (below zero) or extremely large and belong to the outliers (>17%). Therefore a more real range is chosen of 0.4 standard deviations around the mean: from 2% to 10% non-employment.

95 This additive character should not be confused with linearity of the interaction effects. In the latter case the difference between interaction coefficients is similar between education categories. For instance if interaction coefficient were found for embedding variable C with primary education of 0.42, with secondary education of 0.84, and for tertiary education of 1.26, then the effect would be additive and linear. If the coefficients are 0.42, 0.73, and 1.98, they are additive but not linear: the differences between the four educational groups are not equal to each other.

7.6a). If the starting position differs and the employment level of uneducated women in Area A is lower than in Area B, a negative interaction coefficient indicates 'fanning in' (see Figure 7.6b).[93] However, in both cases the interaction coefficient is positive, because the effect is larger in Area A.

To determine what is really going on, the main coefficients of education, the constant and its variance should be taken into account. Plots based on the full regression equation will be used to do this. In these plots, the effect of education is given for different values on the district- or country-level variables. Generally, I take the value one standard deviation below the average in the sample, and one a standard deviation above.[94] The other variables use the averages as given in Chapter 4. Moreover, in logistic analyses the (assumed) non-linear relationship between probabilities on women's employment (or any other dependent variable) and the explanatory factors are linearised. Because the interactions are based on the additive logged odds and not on the multiplicative odds ratios or the probabilities, the differences in effects (in terms of fanning in or out) might be somewhat different when measured in probabilities. To fully comprehend the differences in effects, the results presented in terms of logged odds (Table 7.2) are recalculated to probabilities when needed. That is why the visualisations of the interaction effects – the plots – will show the probabilities on employment by education, whereby the district or country-level variables are varied.

7.5.2 THE GENERAL PATTERNS

Table 7.2 presents the interaction coefficients of both the bivariate and multivariate analyses. Generally speaking, the coefficients are largest and the most significant interactions are found for tertiary education. In the multivariate model only the two country-level variables are the exceptions. Furthermore, most (five out of nine) interaction effects have an additive character: the interaction coefficients for a particular embedding variable show the same sign and become larger when the education level rises.[95] The exceptions to this are economic development, traditional care role norms, and again the two country-level variables.

As will be discussed below, some of these results were expected, some are surprising. Nonetheless, it can already be concluded that labour market structures, norms, and policies do at least correlate substantially with different effects of education. For each of the embedding factors at least one statistical difference is found, and for most factors several interaction coefficients are significant and show a clear pattern.

7.5.3 LABOUR MARKET STRUCTURES

Four expectations were formulated regarding the impact of labour market structures on the effect of education. Of these three seem supported (the negative influence of male labour supply, the service sector size, and urbanisation on the influence of education), but the fourth (on the light-manufacturing industry) does not. Both the bivariate and the multivariate coefficients for the non-employment of men are positive, statistically significant ($p<0.001$), and increase by the level of education. Based on the multivariate model, we can say that the difference in logged odds on employment between tertiary-educated women and uneducated women varies with a maximum of 3.81 (5.374*0.71). If the non-employment of men in a district is higher, being (higher-) educated makes more of a difference. Women without education are most disadvantaged in a district with high unemployment. Figure 7.7 – plotting the probabilities for average women in an average environment – illustrates this somewhat with a small fanning-in effect: the difference between districts becomes smaller when the education level increases.

The expected negative interaction between education and the size of the service sector was also found in the bivariate and multivariate models. The largest and only statistically significant difference was found for the difference between tertiary- and uneducated women. The effect of education in regions with a larger or smaller number of service sector jobs is largely the same for women without education, or for those with primary or secondary education. The difference between these education levels and tertiary education is however much smaller in areas with many service sector jobs when compared to areas with few service sector jobs. Figure 7.8 presents the probabilities and shows that the probability for tertiary-educated women hardly

Table 7.2 Interaction coefficients of bivariate and multivariate four-level logistic regression analyses with the logged odds of being non-

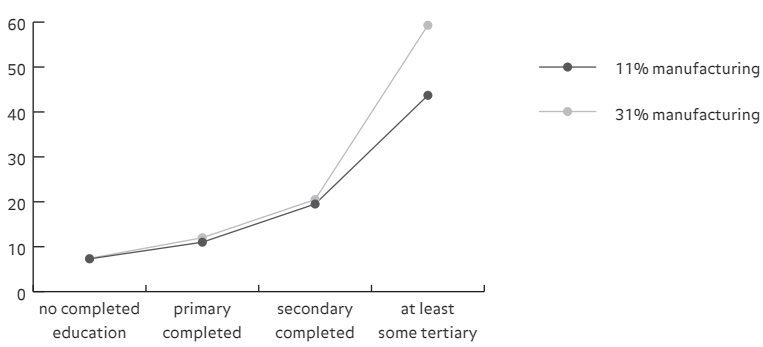
The variable with which education is interacted	Range
Bivariate models	
District level	
Economic development: Wealth level	0.01 - 0.87
Male labour supply: Male non-employment	0.00 - 0.71
Labour market structure: Share white collar	0.03 - 0.81
Labour market structure: Share skilled labour	0.01 - 0.48
Degree of urbanisation	0.00 - 1.00
Norms: Women in public sphere	0.00 - 0.79
Norms: Traditional care roles	0.03 - 0.76
Country level	
State institutionalisation of conservative Islam	0 - 6
Traditional family policies & laws	0.06 - 0.71
Multivariate model	
District level	
Economic development: Wealth level	0.01 - 0.87
Male labour supply: Male non-employment	0.00 - 0.71
Labour market structure: Share white collar	0.03 - 0.81
Labour market structure: Share skilled labour	0.01 - 0.48
Degree of urbanisation	0.00 - 1.00
Norms: Women in public sphere	0.00 - 0.79
Norms: Traditional care roles	0.03 - 0.76
Country level	
State institutionalisation of conservative Islam	0 - 6
Traditional family policies & laws	0.06 - 0.71

* p<0.05 ** p<0.01 *** p<0.001; Ni = 296,460; Nh = 227,477; Nd = 383; Nc = 28; The DIC of the multivariate model: 234,121.29
The coefficients presented are all part of a larger model which is identical to Model 4 from Table 6.2. The only difference is the addition of the interaction terms (and in the case of traditional family policies also this main effect). In appendix 7.1 the main coefficients are given. The models are based on MCMC estimation, starting from IGLS models weighted for in-country and between-country representativeness. Sources: see Chapter 4.

agriculturally employed as dependent variable

Primary education completed		Secondary education completed		At least some tertiary education	
Interaction coefficient	s.e.	Interaction coefficient	s.e.	Interaction coefficient	s.e.
0.179 *	0.076	2.115 ***	0.111	3.519 ***	0.111
0.850 ***	0.237	5.618 ***	0.301	9.392 ***	0.434
-0.009	0.103	0.159	0.152	-0.931 ***	0.169
0.493 **	0.183	2.922 ***	0.255	6.998 ***	0.339
-0.054	0.066	0.282 **	0.093	-0.081	0.092
-0.662 ***	0.119	-2.353 ***	0.148	-3.869 ***	0.158
-0.957 ***	0.142	-2.478 ***	0.184	-4.504 ***	0.223
-0.037 ***	0.010	0.148 ***	0.013	0.120 ***	0.016
-1.654 ***	0.104	-2.226 ***	0.172	-2.561 ***	0.155
-1.076 ***	0.154	0.475 *	0.222	3.737 ***	0.343
2.084 ***	0.301	4.870 ***	0.382	5.374 ***	0.577
0.264	0.148	0.075	0.259	-1.539 ***	0.266
0.414	0.256	0.254	0.346	3.093 ***	0.369
-0.142	0.090	-0.726 ***	0.137	-2.125 ***	0.141
-0.268 *	0.125	-1.575 ***	0.163	-1.842 ***	0.175
-0.983 ***	0.268	-0.832 **	0.269	1.275 ***	0.321
-0.019	0.012	0.113 ***	0.017	-0.082 ***	0.022
-2.152 ***	0.181	-2.509 ***	0.210	-0.801 *	0.359

Figure 7.9 Women's employment predicted, varying education and the number of light manufacturing jobs



Box 7.5

7.1 To the extent that the male labour supply in a community is more depleted, the greater the effect of a woman's education
✓ on her probability of being gainfully non-agriculturally employed in that community.

7.2 To the extent that the number of jobs in the service sector in a community increases, the smaller the effect of a woman's
✓ education on her probability of being gainfully non-agriculturally employed in that community.

7.3 To the extent that the number of jobs in the light manufacturing sector in a community increases, the larger the
x difference in women's probability of being gainfully non-agriculturally employed between primary educated women and women without education, and the smaller the difference between primary educated women and women with a higher education.

7.4 To the extent that the urbanisation of a woman's living environment increases, the smaller the effect of a woman's
✓ education on her probability of being gainfully non-agriculturally employed.

96 See Section 4.7.2, were the operationalisation of this variable is dicussed. A closer look at the make up of the light-manufacturing jobs (skilled manual labour) in the datasets that provide more detailed information about occupation (only a few do) indeed indicates that light-manufacturing jobs are mainly in the food and textile industry. In Azerbaijan, for example, the larger part of women coded as being active in light manufacturing are active in 'food processing and related trades workers' and 'textile & garment & related trades workers'. In Burkina Faso it are mostly 'crafts & production of goods' workers. For Nigeria almost all women in this category are active in one of the following three trades: 'spinners, weavers, knitters, dyers and related workers', 'food & beverage processors', and 'tailors, dress makers, sewers, upholsterers & related workers'.

97 Based on analyses of the 383 districts as units of analyses, the Pearson correlation of urbanisation with non-employment is 0.136 (which is with 99.3% certainty above 0) and with economic development it is 0.643 (with more than 99.9% certainty above 0).

98 These figures are not to be confused with percentage points in which probabilities are expressed – here I give the percentual (relative) change in these probabilities.

differs. The difference in service sector size is however much more relevant for women with lower educational levels. They seem to be harmed most by the absence of service sector jobs.

The results for the embedding effect of light manufacturing do not support the expectations. Where it was expected that the size of this sector would have a positive effect on the chances of women with primary education, it mainly affects higher-educated women. The more light manufacturing jobs, the larger the effect of education for those with tertiary education, especially when compared with the smaller effects enjoyed by lower education levels. Given the main coefficients (see Appendix 7.2), this means that the employment level is similar for women with no, primary or secondary education regardless of the number of light-manufacturing jobs, but women with tertiary education have a considerably higher likelihood of being employed in districts with more manufacturing jobs (see Figure 7.9). This indicates that employers in the manufacturing industry draw from a group of tertiary-educated women who are not employed in the service sector. Possibly, this group consists of tertiary-educated women who want to work, but will not or cannot work outside the house, for instance because of the presence of children or restrictive values and norms. In those cases the manufacturing industry offers opportunities to work at home in the food and textile industry (see Section 4.7.2, were the operationalisation is discussed).[96]

The multivariate model also shows the expected negative interaction of the degree of urbanisation with the effect of education. That this effect was not found in the bivariate model is not really surprising, because the degree of urbanisation is not only positively correlated to the presence of suitable jobs, but also, for example, to non-employment and economic development,[97] which show opposite effects. In the bivariate model, these are not filtered out.

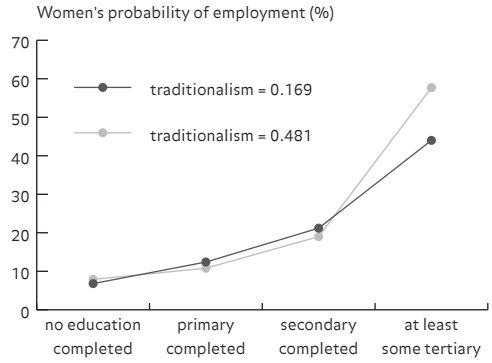
Overall, the analyses in this section tend to support three of the hypotheses formulated above (see Box 7.5 for the hypotheses and outcomes). Only Hypothesis 7.3 was not supported by the results. It seems that the underlying assumption about preference formation has to be adjusted. Given social restrictions, some tertiary-educated women might choose a manufacturing job at home (or not at all) instead of one in the service sector, because manufacturing gives them the opportunity to work from home. These women might only enter the labour market if such possibilities exist. Simultaneously, the results for the service sector and urbanisation support the idea that employers in these sectors prefer higher-educated women over women (and men) with a lower education level. For light manufacturing this seems to hold as well: when tertiary-educated women want to work in manufacturing, it seems they are able to find a job. Generally, tertiary-educated women who want to work outside the home are relatively immune to changes in the non-employment of men and the presence of service sector jobs, as long as there is a shortage of people with tertiary education. Lower-educated people are affected more by changes in labour market structures. That employers prefer to employ relatively higher-educated people underscores the importance of receiving education in finding a job and gaining employment.

7.5.4 CULTURAL NORMS

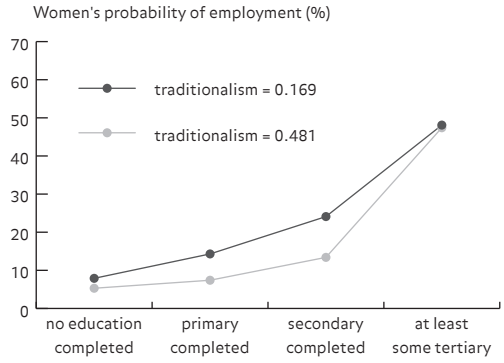
With regard to gendered public presence norms, the effect of education does indeed seem to be less strong in districts more favourable to women entering the labour market (Table 7.1). However, once translated and 'delinearised' to probabilities, the relationship between education and employment shows more similarities than differences between districts with less or more restrictive norms. It seems that the norms on entering the public sphere also matter for women with tertiary education. However, the effect is proportionally larger for women with lower education levels: comparing districts with a low public presence (one standard deviation below average: 0.05) and with a higher one (one standard deviation above average: 0.37) shows that women's chances of being employed increase by more than 100% for women without education or with primary education, while for women with secondary and tertiary education the chance increases by 44% and 19% respectively.[98]

The care role norm variable shows a more mixed result. Before controlling for other factors, the effect is opposite to what was expected, with especially the higher employment of tertiary-educated women in more traditional areas found to be remarkable (Figure 7.10a). Once the

Figure 7.10 Women's employment predicted, varying education and the district-level traditionalism



A Predictions unadjusted

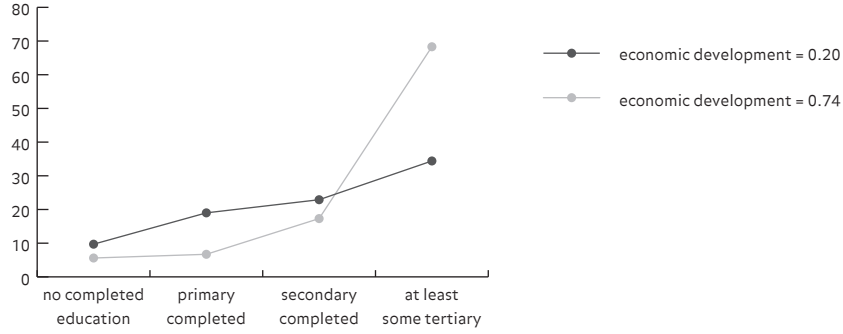


B Predictions adjusted for correlation between traditionalism and five micro-level variables

Box 7.6

7.5 To the extent that the presence of women in the public sphere in a community increases, the smaller the effect of a
? ✓ woman's education on her probability of being gainfully non-agriculturally employed in that community.
7.6 To the extent that the dominance of traditional care roles in a community increases, the larger the effect of a woman's
? ✓ education on her probability of being gainfully non-agriculturally employed in that community.

Figure 7.11 Women's employment, varying only education and the level of economic development



99 For Figure 7.10a the average scores are used on all variables but education and district-level traditionalism. For traditionalism two scores were chosen: the scores that marked the first and last decile of 383 districts. For Figure 7.10b, on the five micro-level variables that vary considerable with the degree of traditionalism in a district, the averages were used of the first and last quintile of districts on traditionalism. Quintiles are used since doing so takes the 76 districts surrounding the chosen scores on traditionalism (0.169 and 0.481), 38 districts on either side. The five micro-level variables were: the number and age of children, having a partner, living in a city, age difference between partners, and traditional household structures.

numbers are controlled for the fact that in districts with more traditional care role norms the averages on other factors, such as the number of children and living in a city, differ as well (Figure 7.10b), the effect is more in line with expectations.[99] Regardless of this, the effect of tertiary education is smaller in less traditional districts compared to the effects of secondary and primary education in those districts. In less traditional areas, lower-educated women are more often employed, while for tertiary-educated women the traditionalism of the norms matters less in the education payoff. Simultaneously, in less traditional districts, the difference between primary and secondary-educated women on the one hand and women without education on the other is larger than in more traditional areas. This seems to go against the formulated expectations. An explanation might be that the transmission of norms takes place during (primary and secondary) education, which means that women without any education are less 'affected' by the cultural norms. Consequently, women without education remain in rather similar positions regardless of the cultural environment, while this environment makes a difference for primary- and secondary-educated women, for whom the added value of their education differs with the norms in society.

After further inspection, the results tend provisionally to confirm the expectations for both cultural norm variables (see Box 7.6). However, several more assumptions had to be made to come to these conclusions. Nonetheless, the results are more in favour of the hypotheses than that they contradict them. Overall, public norms do influence the impact of education. Tertiary-educated women seem least influenced by these norms, the effect of tertiary education seems to make them almost immune to these norms, whereas lower-educated women are not. In other words, the additional returns of a higher educational level are lower in districts with less conservative norms.

The effect of education also seems to differ with the level of economic development in an area, but not according to the expectations or in line with the results for the cultural norms variables above. The effect of primary education is smaller in richer districts, but the effects of secondary and tertiary education are larger there (Figure 7.11). Especially the lower levels of employment for the three lowest educational levels seem problematic in richer districts, as well as the negative interaction for the dummy comparing primary to no education. One explanation for this result might be found in the consideration that economic development is not only connected with value change and labour market structure, but also with a decreased economic need to become employed (see the previous chapter). Economic needs are lower in more economically developed districts, and thus women work less in those districts, regardless of their educational level. However, in a poorer district, economic needs can be expected to push women onto the labour market, especially those from lower economic strata (i.e. the lower educated). Of the lower educated, those with some education can more easily find a job. This explains the variation in the difference between women without education and women with primary education. The weak effect of tertiary education in poorly developed districts might then capture the general absence of jobs, as enough higher-educated men are available to fill the positions.

In this reasoning, I do assume that education and wealth overlap. Yet this is not a mere assumption: based on household assets (car, electricity, radio, refrigerator), I created a five-point scale running from 1 to 5 indicating the household's wealth. Comparing these figures with education shows a strong correlation: women without education have an average household wealth score of 1.8; with primary education 2.5; secondary 3.2; tertiary 3.7.[100]

In sum, the surprising effect of economic development seems to be related to the observation that economic development is a container concept harbouring many processes, including labour demand and economic needs. After controlling for some of these effects, economic development seems to impact the effect of education, though in a different way than my expectations regarding labour market structures and values suggested (Box 7.7 shows the hypothesis and outcome).

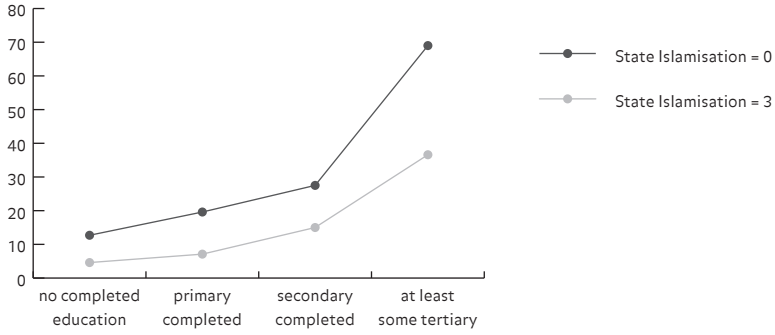
7.5.5 POLICIES

Of the three groups of interactions, the results are most ambiguous for the two policy interactions. The interactions with traditional policies show the expected negative signs, but

Box 7.7

7.7 To the extent that the economic development in a community increases, the smaller the effect of a woman's education on
? x her probability of being gainfully non-agriculturally employed in that community.

Figure 7.12 Women's employment predicted, varying education and the level of State Islamisation



Box 7.8

7.8 To the extent that traditional gendered family roles are more institutionalised in government policies, the smaller the
? effect of a woman's education on her probability of being gainfully non-agriculturally employed in that community.
7.9 To the extent that the institutionalisation of conservative Islam into the state increases, the smaller the effect of a
? ✓ woman's education on her probability of being gainfully non-agriculturally employed in that community.

100

As said before, it is hard to include wealth levels at the household level: the risk of serious biases due to endogeneity is too large. It is possible to control for the interaction of economic development with having a spouse and the presence of a male breadwinner, but these cannot be expected to capture the full economic need effect. In an additional model, interaction terms between economic development and the two economic needs variables (partner, male age head of household) are included to test this reasoning. Both interaction terms show the expected negative interaction effect: a strengthening effect. The interaction for partner is highly significant ($p<0.001$), for the presence of a working-age male head of household it is only significant at a 10% criterion). In richer districts the difference between women with and without partner/working age male head of household is larger. This can be interpreted as to say that having a partner in a poorer district does not alleviate the economic need enough to keep women from entering the labour market.

the effect weakens for tertiary-educated women, and the main coefficient for more traditional policies is positive. Correcting for micro-level differences between districts with more traditional policies and those that have less traditional policies partly corrects for this (as was the case for traditionalist societal norms), but not completely.

For the institutionalisation of conservative Islam, the coefficients seemed to show mixed results as well. However, once the results are translated to probabilities there seems to be a fanning-out effect (see Figure 7.12), which is in line with the expectations. In areas with more restrictive policies, education pays off less. However, this can differ somewhat for women with non-average scores on the other explanatory variables, such as having children, a spouse, and the labour market structures.

For both policy variables, the results are not clear-cut (Box 7.8). More research, including more and better measurements of policies at the country level might shed more light on the mechanisms involved. The analyses in this study preliminarily suggest that the entrance of higher-educated women to the labour market increases disproportionally in districts with less strict policies. Still, it is far too soon to be sure of such an effect.

7.6 CONCLUSIONS

Here, the results will be summarised and related to the larger theoretical framework (Section 7.6.1), I will also reflect on the robustness of the results, including the difficulties encountered along the way (Section 7.6.2), and the wider implications of this chapter's results (Section 7.6.3).

7.6.1 OVERALL RESULTS

This chapter has exclusively focussed on the effect of education on employment: (how) does it differ across districts and countries? The results will contribute to the answer on the third general question in this thesis:

3) Do the effects of explanatory factors of women's employment in Muslim countries differ in strength and presence according to time and space, and if they do, how and why do they differ?

In fact, this question collapses three issues and I shall discuss these subsequently: (1) is there a difference in strength, (2) what patterns does this difference show, and (3) how can we explain this difference?

In the first part of this chapter, I have established that the difference between lower and higher education in terms of its effect on employment likelihoods is, though overwhelmingly positive, clearly not the same across districts or countries. The interaction models subsequently showed that these differential effects primarily relate to economic and cultural factors, and probably also to policies in the different areas. With these results (five hypotheses seem supported, two seem rejected, and for another two the results are too inconclusive to draw real conclusions), the overall existence and relevance of 'embedded interrelatedness' (see Chapter 2) is clearly supported.

Based on notions of needs (household economics, societal labour demand), opportunities (feminised labour markets, education), and values (societal norms), expectations were formulated that are largely supported by the analyses in this chapter. The main pattern found for different factors is that higher-educated women have higher levels of employment regardless of their district's characteristics in terms of labour market structures and societal norms. The 'why' behind this is found in two mechanisms that are supported by the analyses in this chapter: (1) higher-educated women are less influenced by labour market changes once they have entered the labour market. As the demand for tertiary-educated people outweighs the supply, tertiary-educated women who want to find a job will more easily do so; and (2) it seems that norms mostly make a difference for lower-educated women, because tertiary education leads to higher employment relatively regardless of the norms prevailing in society (public presence, traditionalism). Norms seem mostly to be transmitted through lower levels of education, whereas tertiary education is more or less emancipatory by nature, because tertiary education helps to 'break free' from societal norms.

101 Here I make another assumption: that it is easier to have little contact with men in the service sector than in other sectors. This assumption is based on the existence of all-women universities, hospitals, etc. However, also women only industrial parks exist (Van der Haak, 2005).

The first mechanism was supported by the results for non-employment of men, urbanisation, and the presence of service sector jobs. The creation of additional jobs (or the loss of them) leads to relatively higher (or, in case of loss, lower) employment rates among the lower-educated women on the labour market. The only exception to this rule was the effect of light manufacturing. More jobs of this kind seemed mainly to increase higher-educated women's employment rates. It seems the case that the women finding employment in more manufacturing-oriented areas are women that would not have entered the labour market if these kinds of jobs – which often involve home-based work – were not offered. These results clearly refute Pampel & Tanaka's implicit argument that, because economic development is rooted in home-based labour, the effect of education will decrease in more economically developed areas (1986: 601).

The second general mechanism is empirically suggested by the two interaction effects showing that in areas with norms more favourable to women's employment the effect of education is smaller. In these areas, more lower-educated women will enter the labour market than in areas with more gender-segregated role patterns, while tertiary-educated women will enter the labour market more often in general. These results go against the suggestions in the literature (Abu-Lughod, 1998; Acar, 2006; Jansen, 2006; Shakry, 1998), which imply that education has the largest effect in less traditional areas. However, these authors do seem to be right in their claim that norms are transmitted through the educational system, only the effects mainly hold for lower education and they made no such distinction.

For economic development and the policy-related variables, less clear-cut differences were found, but context factors seem to matter in these as well. The effect of economic development tends to contradict the results of the other factors, but since economic development harbours many characteristics and processes, the evidence of the other six (value and labour market structure) variables seems to outweigh the result for economic development both quantitatively and qualitatively. Moreover, this contradiction can be explained, once economic needs are taken into account, but this factor could not be fully captured in this study. The results for the policies variables were not in line with my expectations either, and appear somewhat erratic at first (and second) glance. Nevertheless, the absence of these factors in the literature does not seem justified. My overarching framework did draw attention to them, but both policy variables are measured at the country level, where only 28 cases are included, and these measurements could be improved, as I have discussed in previous chapters.

7.6.2 REFLECTION

With regard to different methods of estimation and models, the general patterns in this chapter are rather robust and similar conclusions are reached using various estimation techniques (Appendix 7.3). Still, some reservations should be made regarding the theoretical assumptions and statistical restrictions.

THEORETICAL ASSUMPTIONS

In this chapter, several (theoretical and empirical) assumptions have been made in order to translate the theoretical mechanisms to testable hypotheses on interaction coefficients. Strictly speaking, the fact that the statistical results are in line with the hypotheses does not prove that the – untested – assumptions are correct. In Section 7.4.1, I have presented empirical information that substantiates some of the assumptions about labour market structures, such as the shortage of higher-educated people compared to the number of (higher) service sector jobs. However, that material is neither conclusive nor does it directly test what women's and employers' preferences are. The literature on this (in Muslim countries) is very scarce (some information is found in De Regt, 2009 [Yemen]; Metcalfe, 2007 [Bahrain]; Miles, 2002 [Jordan]; Vidyasagar & Rea, 2004 [Saudi Arabia]), and hardly any research distinguishes between the preferences of women with different educational levels or their preferences for certain sectors. Nonetheless, studies based on open interviews in two oil countries (Metcalfe, 2007; Vidyasagar & Rea, 2004) suggest that (higher-educated) women 'prefer' to work in companies in which the contact with men is minimalised. This might favour working in service sector jobs.[101] Miles

(2002) probably provides the most information: graduates (men and women) are said to 'prefer' public over private jobs because of job security and the match with education (420), and women seem to refrain from work in manufacturing outside the home, because of their vulnerability and risk of harassment. This is for instance illustrated by a high-school-educated woman from Wahdat, quoted by Miles (421): "My brother worked in the sewing factories and said the factory girls get hassled on the bus transporting workers". By obtaining more information about these preferences, it is possible to formulate more exact expectations about the effects of changes in education (and other characteristics of women) on women's chances to become employed in a certain sector instead of another.

Furthermore, the expectations in this chapter have been formulated for a situation in which, for instance, more service sector jobs exist than tertiary-educated people. While the assumed preferences might be stable, a difference in the balance between the demand and supply of certain jobs and people with certain characteristics can lead to expectations in which interaction coefficients are exactly the opposite. To test my expectations, the relationships should also be tested under such circumstances, as I shall partly do in Chapter 10.

STATISTICAL RESTRICTIONS

The analyses in this chapter have also encountered some statistical restrictions. First of all, it should be noted that models become more and more complex and harder to interpret when more interaction terms are included in the model (cf. Jaccard, 2001). Therefore, I have chosen only to include interaction terms with education, about which I had formulated theoretical expectations. Though the interaction effects are now controlled for interactions with the other included macro-level effects, an interaction term is always 'two sided'. The found effects are not controlled for interaction effects with micro-level factors apart from education, but strongly related to education. A possible example is my reasoning on the interaction effect of education with economic development. There it might be the case that the education part of the interaction term actually taps into economic needs.

With regard to the match between a woman's characteristics and the labour market, the interaction of education with labour market structure variables can be expected to be among the strongest. Regarding the societal norms, the correlation between education and having children (especially uneducated women have more children) might have some implications for the results. It can be expected that for women with many children the level of traditionalism is less relevant, because they are restricted by their childcare responsibilities anyway. Then, the difference between primary and uneducated women in less traditional districts might be less after controlling for the number of children. In terms of Figure 7.10b, it would make the two lines more similar, because the low level of employment of uneducated women in less traditional districts does not filter out that it are the women with many children (instead of the uneducated women) that are less often employed in these areas.

7.6.3 IMPLICATIONS BEYOND THIS STUDY

The results of this chapter contain relevant information, both in more general scientific terms and for policy-making.

UNDERSTANDING DIFFERENCES

The study of interaction effects in explaining women's employment (in Muslim countries) is still in its infancy and, compared to the previous chapter, this chapter thus has a more exploratory character. However, the results in this chapter strongly suggest that the relationship between other micro-level factors and women's employment is embedded in their contexts as well. Stressing the existence of different effects in different contexts of education and possibly other explanations of women's employment might open a can of worms. As Bottero (2000: 785) argues more generally: "There is a danger that in the stress to emphasise diversity and heterogeneity any wider understanding of the general processes that generate diversity will be lost, and that the analysis of the 'big picture' will be replaced by attention to detail." In this chapter and the previous one, however, I have shown that the big picture and diversity can be combined: Now

that I have tested the differences in education effects, I can claim with much more credibility that the effect of education on women's employment is largely positive. Simultaneously, it is possible to argue that there are differences in these effects. By transcending the kind of general remark that 'effects differ', and by theorising and testing why effects differ, this chapter has shown that diversity can be systemised; diversity should not be equated with chaos. This was shown for the diverse impact of education in this chapter, but it can also be translated to other fields.

The focus on diversity seems to originate in feminist critiques and gender studies, where it was argued that 'careless generalisation needs to be avoided' (Bottero, 2001: 781), but in the 'discursive and linguistic turn' and shift to postmodernism, this has lead to a moral claim that diversity is the golden standard (Bottero, 2001; Reinharz, 1992: 252–258). This chapter can be regarded as an attempt to integrate the notion of diversity with that of general patterns, or in other words the 'discursive and materialist accounts of gender patterns', which helps to understand current social patterns in terms of differences (see Bottero, 2001; McCall, 2005; Spierings, 2010, 2012a; Walby, 1992, 2009). It is a way of tackling the paradox of doing research on generalised differences that resembles what Reinharz (1992: 252) prescribes for feminist researchers: "Feminism acknowledges the paradox that women are all alike in some ways and dissimilar in others."

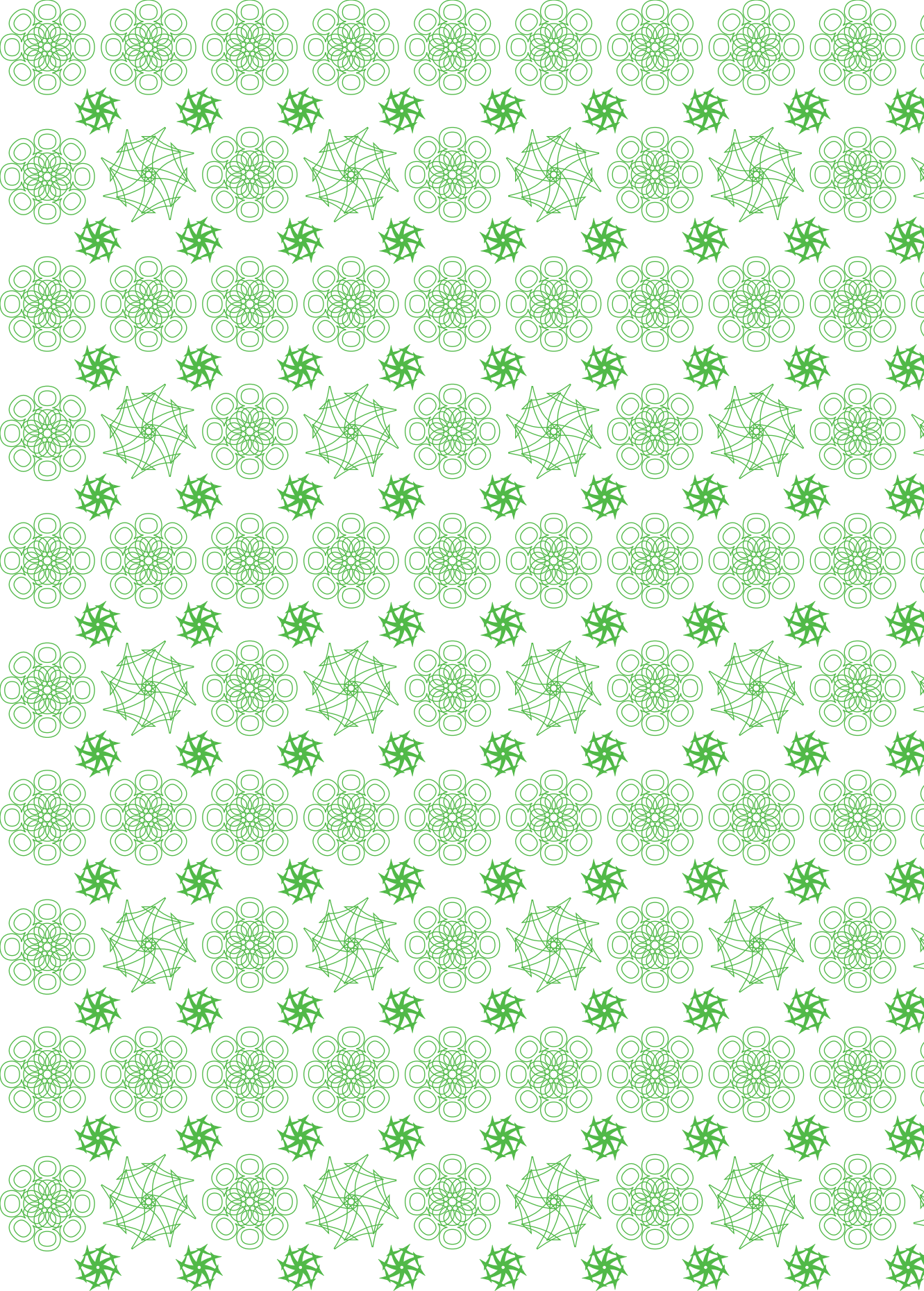
POLICY FOCUS

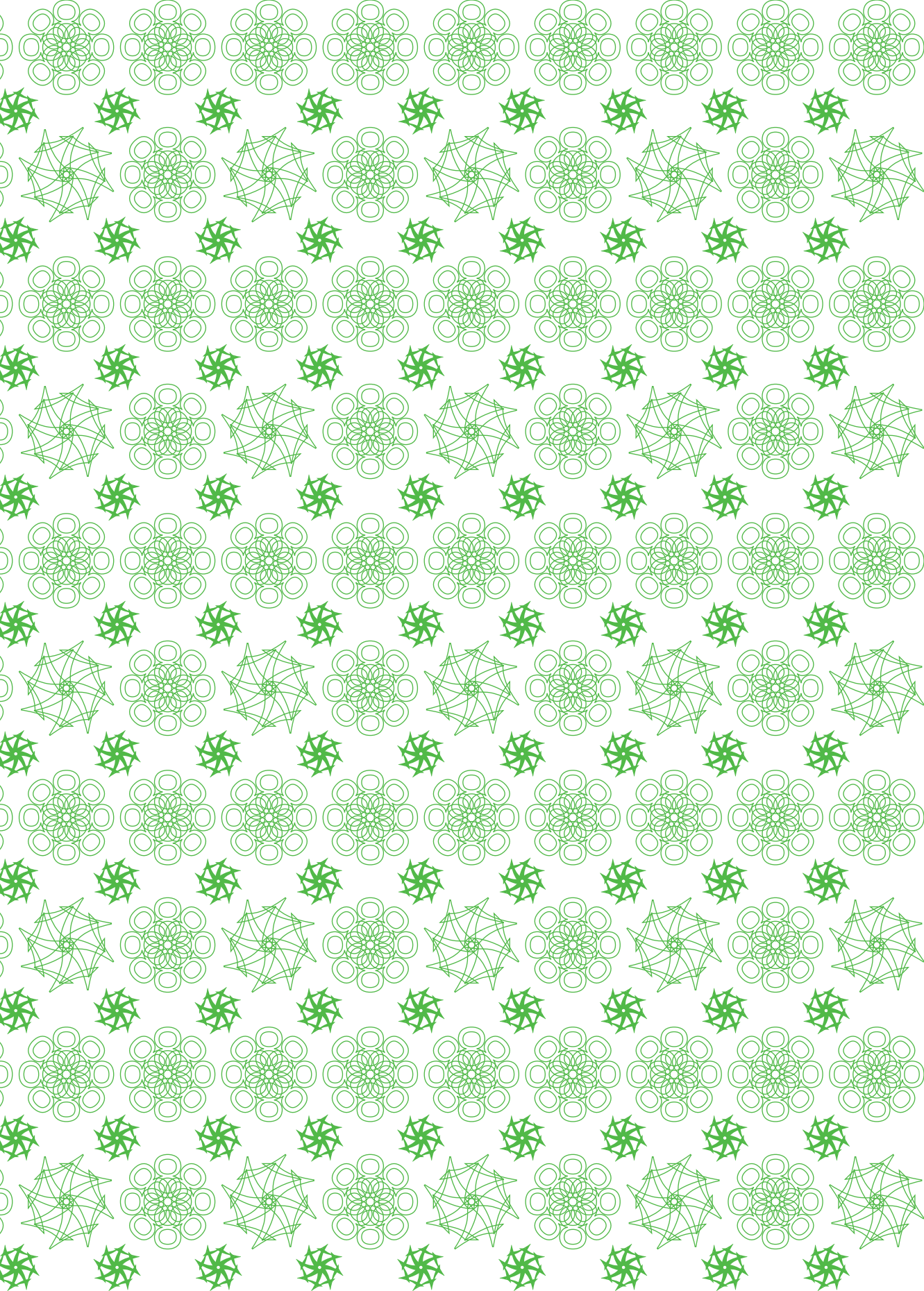
If policies raising educational levels among women are implemented with the goal to help women find a (non-agricultural and gainful) job and make these women economically more independent, there are three concrete implications that can be derived from the results in this chapter.

Firstly, the employment levels of women with tertiary education are the least dependent on the context. This implies that higher-educated women who want to find a job (and thus have entered the labour market) will often succeed in doing so. The group of higher-educated women whose employment level can be increased are then the women who did not enter the labour market in the first place. Their education will only pay off for them if the labour market provides jobs in line with what they think is acceptable for women. Creating jobs in home-based work and gender-segregated workplaces might help this group of relatively less-empowered women in obtaining an income of their own or prevent sexual harassment at work.

Secondly, investing in education is highly productive. Each level of education increases women's chances on the labour market and also the step from no to primary education also generally increases women's employment in the overwhelming majority of districts.

Thirdly, programs focussing on increasing girls' educational participation in developing countries often focus on primary education (e.g. the Millennium Development Goals: Achieve universal primary education (MDG2)). As I have explained, primary education fosters women's employment, but the effects differ. The data in this chapter imply that primary education has a larger effect in areas with less traditional norms and more service sector jobs.





102 There are exceptions such as Glick & Sahn (1997); however, they give no theoretical justification for including household configuration variables.

103 It is not uncommon that ideas about the Middle East are generalised to the whole collection of Muslim countries (Read, 2002: 19). This is also often the case for how patriarchy is used as an explanation to explain difference between the whole Muslim civilisation and other groups of countries.

Chapter 8

Theme 2: New determinants
Patriarchy & household configurations in 28 countries

8.1 PATRIARCHY AND INTRODUCING HOUSEHOLD CONFIGURATIONS

So far the empirical chapters have focussed mostly on factors that already feature in the literature on women's employment in Muslim countries. That focus shifts considerably in this chapter, in which this thesis' framework will be applied to the value system of patriarchy. This will draw attention to the influence of factors related to the composition of the household a woman lives in.

Patriarchy is a prominent concept in the literature on women's economic position in Muslim societies. Caldwell talks about the 'patriarchal belt' across the Middle East, North Africa and South Asia (1978; 1982), Moghadam analyses the 'patriarchal gender contract' for the MENA (1998), and Kandiyoti applies the terms 'classic patriarchy' in South and East Asia and the Middle East, and 'sub-Saharan African patriarchy' for the system in which polygyny and the relative autonomy of women co-exist (1988; 1991). These general concepts of patriarchy are mainly used to explain why 'patriarchal countries' have lower employment rates, but not to explain how differences within countries are shaped by the patriarchal system. That is where this chapter comes in.

These typical Muslim-country patriarchy concepts in the literature all emphasise the prevalence of non-nuclear families in the form of the extended households. Indeed, the dominant norm or household configuration in the countries studied here is not that of two parents and a few children. Based on the data used in this thesis, it seems that in the 28 countries about 40% of women live in an extended household (and that includes polygynous ones). This implies a great variety in household configurations, and these micro-level differences can be expected to matter in explaining women's employment. Patriarchal values about gender roles and the patrilineal system, in which men and elderly people have most status, both lead to different needs and opportunities for women. Nevertheless, existing micro-level studies almost exclusively focus on only two aspects of the household configuration: being married and having children (e.g. Al-Qudsi, 1998; Amin & Al-Bassusi, 2004; Başlevent & Onaran, 2004; Dale, Fieldhouse, Shaheen & Kalra, 2002; Esmaeili Khatir, 2007; Gündüz-Hoşgör & Smits, 2008; Hirschman & Aghanjanian, 1980; Khattab, 2002; Kuepie, Nordman & Roubaud, 2009; Miles, 2002; Spierings, Smits & Verloo, 2010).[102] This is probably due to the lack of a crossover between the literature on the concept of patriarchy and the statistical micro-level studies.

Below, I intend to fill this gap in two ways: firstly by formulating new hypotheses about the possible influences of factors such as the presence of elderly (care consumers), adult women (care providers), adult men (income providers), and different children (care consumers with different perceived needs) in the household (Section 8.2). After discussing the operationalisation (Section 8.3), the results for the 28 countries are subsequently interpreted in relation to the impact of having a partner and children (Section 8.4). Secondly, in line with the idea that micro-level effects differ by context, I will take a closer look at the possible differences between groups of Muslim countries,[103] formulate some exploratory expectations on how these might influence the micro-level relationships, and rerun the analyses separately for the four distinguished regions: the Greater Middle East, Sub-Saharan Africa, Central Asia, and Southeast Asia (Section 8.5). Section 8.6 ties the results to the general questions posed in this thesis and more generally discusses how different literatures can benefit from new connections between different fields of study.

104 As mentioned in the introduction to this chapter, different labels are used to designate this type of patriarchy. While this one – introduced by Kandiyoti – might be interpreted implying a historical or geographical original form of patriarchy, I think it is the best (short) label given the literature on patriarchy. Furthermore, I refrain from using labels such as 'Islamic patriarchy' or 'Muslim patriarchy' because the content of this patriarchy can be found in not Islamic contexts as well and the content might not originate in Islam.

105 Walby (1996: 21) mentions the tendency of Moghadam to focus on the household level, but while I often build from Moghadam and focus on the household level, I still see patriarchal regimes as (re)constituting systems of gender inequality involving multiple parties, including individuals and households as well as collective bodies such as states (Moghadam 1998: 9; see also Pateman, 1988).

8.2 THEORISING PATRIARCHY

To understand how patriarchy is conceptualised, I will first discuss how it is generally understood when it comes to Muslim countries. Next, I will use the needs and opportunities conditions to translate the values found at the core of the classic patriarchy concept to hypotheses on the impact of household configurations. In this exercise two new groups of variables are distinguished: one related to household roles & needs and a second related to sex hierarchy & lineage.

8.2.1 CLASSIC PATRIARCHY

Of the social institutions in Muslim countries, patriarchy might well be most frequently referred to as an impediment to women's employment. It is usually described as a conservative and traditional structure, ideology or regime regarding families and the position of women (e.g. Gündüz-Hoşgör & Smits, 2008; Inglehart & Norris, 2003a, 2003b; Read, 2002, 2004; Syed, 2008; Fergany et.al., 2006: 173–4; Yuchtman-Yaar & Alkalay, 2007). In this reasoning, the concept of patriarchy is still rather abstract and vague (Kandiyoti, 1988), and in need of further definition to become useful in understanding how it might influence women's employment.

Despite the literature's (substantially) different usages of the concept (Walby, 1996; 2009), two core elements recur in each definition: 'gender inequality' and 'systematicity' (Walby, 1996: 20). In the case of Muslim countries these two elements are further defined in the idea of 'classic patriarchy',[104] which is the type of patriarchy generally referred to concerning Muslim countries. The two core characteristics of ideal-typical 'classic patriarchy' that are at the centre of this value system are: (1) the dominance of patriliny in households and (2) a strict division of labour within households. Given my focus on the household level,[105] I will focus on the societal values in classic patriarchy that inform the possible roles and contributions of household members and their perceived care needs and standing in the household. Because there are many different (non-nuclear) household configurations, this can have ample implications for the overall balance in care and in economic needs as well opportunities, consequently shaping women's employment likelihood.

In patrilineal systems, the typical household is headed by the senior male; both age and sex thus determine one's household position, with gender being more important than age. Furthermore, the transfer of status over generations is determined through the male line. Women live in their husband's households, sons are preferred over daughters, and women are subordinate to male household members (Gündüz-Hoşgör & Smits, 2008; Kandiyoti, 1988; Moghadam, 2004).

The strict division of labour is closely connected to the patrilineal system. In the words of Kandiyoti (1988: 279): "the patrilineage totally appropriates both women's labour and progeny and renders their work and contribution to production invisible". In classic patriarchy, the male breadwinner/female homemaker model is dominant and very present (Moghadam, 1998; Kandiyoti, 1988; see also Jansen, 2004; Miles, 2002). Income is provided by the labour of the (adult) men in the household. Such labour is generally performed outside the home. A woman's role is restricted to that of caregiver. Women run the household, bring up the children, and care for other household members. All of this is seen as a collection of tasks mainly performed within the boundaries of the home. This way, it is assured that women can maintain "their respectable and protected domestic roles" in the family as the "fundamental unit in society" (Dale a.o., 2002; Kandiyoti, 1988: 280; Moghadam, 2004).

8.2.2 VALUES AND NEEDS & OPPORTUNITIES

In this section, the conceptualisation of patriarchy discussed above will be translated to specific hypotheses regarding the influence of household configurations on women's employment. The framework of needs, opportunities and values helps to understand who the most relevant people in the households are and how their presence or absence might change the likelihood of women's employment. The values are the underlying pattern that partly determines who is considered to be a caregiver, who a care consumer, who an income generator, and who has first drawing rights from the available resources. As discussed in Chapter 3, children are care consumers

Box 8.1

8.1 To the extent that the number of adult women in a household increases, the greater the probability of a woman in that household to be gainfully non-agriculturally employed.

8.2 To the extent that the number of elderly people in a household increases, the smaller the probability of a woman in that household to be gainfully non-agriculturally employed.

8.3 To the extent that the number of adult men in a household increases, the smaller the probability of a woman in that household to be gainfully non-agriculturally employed.

8.4 If a woman is the head of household, the probability that she is gainfully non-agriculturally employed is greater than if she is not the head of household.

8.5 If a woman is the partner of the head of household, the probability that she is gainfully non-agriculturally employed is smaller than if she is not the partner of the head of household (or head of household herself).

Box 8.2

8.6 To the extent that the proportion of children that is male in a household increases, the smaller the probability of a woman in that household to be gainfully non-agriculturally employed.

8.7 To the extent that the proportion of children who are non-biologically related to the household's family increases, the greater the probability of a woman in that household to be gainfully non-agriculturally employed.

8.8 To the extent that the number of young male relatives of a young woman in a household increases, the smaller the probability of a young woman in that household to be gainfully non-agriculturally employed.

106 The role of grandparents, grandmothers in particular, in patrilineal systems and how they tend to increase the care demand more than the care contribution or economic contribution is nicely discussed in a recent Dutch scientific newspaper article by Vlasbom (2011).

and male breadwinners (including spouses) are primarily income generators, so the presence of either children or a male breadwinner decreases women's employment likelihood. The new household configuration variables can be divided in two groups according to the two defined core aspects of classic patriarchy: hypotheses on five variables concern the balance between care and economic needs and gendered household positions, and three concern the sex hierarchy in lineage.

HOUSEHOLD POSITIONS & NEEDS

Taking the household as a unit and considering that sex, age, and household position shape the balance between care demand and supply as well as between economic demand and supply leads me to formulate the following five new expectations (see Box 8.1 for the hypotheses).

In general, higher care demand will decrease women's employment likelihood (and vice versa), while care provision supplementary to the care a woman can give will increase that woman's chance of being employed (and the other way around). Given gendered household roles, (adult) women are the ones who mainly perform caring tasks, and therefore the total number of caregiving women in a household is relevant. They constitute the total care supply together and thus also influence the care balance. This means that in households in which more (adult, but not elder) women are present, the care burden for each woman can be expected to be lower (ceteris paribus), which is likely to increase their individual chances of employment (see also Amin & Al-Bassusi, 2004; Spitze, 1988) (Hypothesis 8.1).

Aside from the number of children, the total care demand in a household possibly also depends on the presence of elderly people. In the context of traditional household patriarchy, the nuclear family is not the norm and elderly household members – important as they are in terms of lineage – often live with their children. Given the honoured position of the elderly in this system, it can be expected that their presence increases the care burden of women in the household and thus decreases women's employment chances (Hypothesis 8.2).[106]

In terms of the balance of economic demand and supply, the presence of adult men can be expected to matter. In the patrilineal household, the head of household is male and the primary income provider. The core household role of generating income is however not restricted to the head of a household, especially not since – again – households are often extended. For other adult men, the typical household role is also being active on the labour market. If a household needs additional income, other adult men will be the first to be considered as 'secondary income providers'. Consequently, the number of adult men in a household mainly determines the basic economic supply. If there are relatively few adult men in the household this supply might not meet the demand, leading the women to seek jobs as well. Therefore, I expect that women living in households with more adult men have lower likelihoods of being employed (Hypothesis 8.3).

Regarding women's household position, the wife of the head of the household can be considered to be the head of the household in terms of running it (see Kandiyoti, 1988: 279). She bears the main care responsibilities and is the primary care provider. However, if that woman is also the general head of the household (for whatever reason), she bears the responsibility of providing for material needs as well (cf. Fergany et.al., 2006). The demand for food is more important in terms of survival than the demand for care. Consequently, women in this position are expected to be employed more often. Women who are neither head of the household nor the household head's spouse can be expected to have employment likelihoods between the two other groups. They are expected to contribute less both to the household's care and its economic supply. The relative positions of these three groups of women are captured in two hypotheses (Hypothesis 8.4 and Hypothesis 8.5).

SEX HIERARCHY & LINEAGE

The second core characteristic of classic patriarchy focuses on hierarchy and status transmission. The underlying value system dictates that men are more important than women, and consequently household means (both material and immaterial) are not distributed equally among household members. The consequences of this for women's employment can be summarised in the following three hypotheses (Box 8.2).

Table 8.1 Overview of household configuration variables by statistical level

Factor (Hypo)	Variable	Values[3]	Average (s.e.)[2]	Missings[1]
Individual level (n=295,777)				
Position in household	Relationship to the head of household	(1) Head of household	0.06	274
		(2) Partner of head of household	0.60	
		(3) Other relationship to head of household	0.34	
Household level (n=226,676)				
Presence of adult women	Number of women aged 15–60	min: 1 max: 22	1.71 (1.08)	0
Presence elderly people	Number household members aged 61 and up	min: 0 max: 6	0.28 (0.57)	0
Presence of adult men	Number of men aged 15–60	min: 0 max: 16	1.52 (1.14)	0
Control: Household size	Total number of household members	min: 1 max: 69	5.94 (3.15)	0
Sex of children	Proportion of children up to the age of 11 in the household that is male	min: 0.00 max: 1.00	0.51 (0.37)	0 (48,863)
Biological relatedness of children	Proportion of children of the head of household that are not biological descendents	min: 0.00 max: 1.00	0.01 (0.07)	848 (19,147)
Young male relatives	Men/women ratio among children of head of household	min: 0.00 max: 1.00	0.45 (0.42)	0 (115,659)

Notes: (1) 'impossible missings' (see Section 4.4.3) are only included between brackets; (2) in the case of nominal/categorical variables no standard deviation is reported and the average represents the proportion of cases falling in the designated category; (3) the presented minimums and maximums are the extremes as they are present in the data, not the conceptual/possible extremes.

107 The same reasoning can be used with regard to obtaining education (the specific resources that help to enter the educational system might be different however). Still, regardless of whether a woman is educated or not, this also applies to women finding a job: a household can have decided that resources are used to let a girl enter primary and even secondary education, but once she is living with her family after that, at the age of let say 16, there is still a decision to be made what resources are to be used to help her find a job if she wants one. Similarly, young women without education can decide that they want to work outside the home (17.3% of the women without education in fact does [see Figure 5.9]).

108 It is also possible to include ratios for these three variables: the number of household members of a specific group divided by the total number of household members. Rerunning the model as presented in Table 8.2 with such ratio's does not lead to substantially different conclusions. I have not chosen the ratios, since the current operationalisation leads to easier interpretable coefficients.

109 A model estimated with a weighted IGLS procedure is given in Appendix 8.2.

Firstly, in this gender system, having sons is more important than having daughters. In the extreme it can be argued that the survival of boys is more important than that of girls. Consequently, it can be expected that boys receive more attention and are in that sense more 'care-demanding'. If so, their presence is more restrictive to women who want or need to enter the labour market (Hypothesis 8.6).

Not only the offspring's sex is important, but also the question whether the people who need care are part of the family line. A focus on status transmission through the bloodline tends to emphasise biological descent. This means that the children who are biologically related to the head of the household do help the family to survive over the generations. Children not-biologically related to the household's family might not be considered to be fully part of the lineage of the family. Consciously or unconsciously, these children might be given less attention (see also Glick & Sahn, 1997). The balance between economic needs and care needs then tilts more towards entering the labour market if the same number of children is present, but fewer are biologically related to the household's family (Hypothesis 8.7).

The notion that male children are regarded as more important has implications for women's opportunities in terms of household resources as well. I expect this to be reflected most in the distribution of household resources used to find a job.[107] If a young woman has many young relatives, the (limited) household resources that can be employed (money, means of transport, contacts, etc.) have to be shared. Women with relatively more male relatives (mostly brothers or nephews) can be expected to be disadvantaged in this respect, because these resources will first be used for the men (Hypothesis 8.8).

8.3 MEASURING (THE IMPACT OF) HOUSEHOLD CONFIGURATIONS

The household surveys used in this thesis include the age, sex and relation to the head of household for each and every household member. These data were used to measure the household configurations discussed above. The descriptive can be found in Table 8.1.

For the first group of hypotheses, four new factors are added to the analyses. The number of adult women was calculated by adding up the number of women aged 15–60 for each household. This ranged from 1 (the woman herself) to 22 (though in 95% of the cases it was between 1 and 3). For the presence of elderly people, the total number of people over the age of 60 was taken. The minimum of this variable is 0 and the maximum was 6. The number of adult men was measured by the presence of male household members aged 15 through 60, and it ranged from 0 to 16. For control, I also include a variable for the total number of household members.[108] The fourth factor in this cluster is the relation of the woman to the head of household (Hypothesis 8.4 and Hypothesis 8.5). This was measured by creating a three-category variable out of a household position indicator. The three categories are: (1) head of household; (2) spouse of head of household; and (3) other relationship to head of household.

The group of hypotheses involving the sex hierarchy and lineage led to the inclusion of three additional factors. The proportion of boys was measured by dividing the household's number of boys age under 11 in a household by the total number of children in that age group in the same household. The scale ranges from 0 to 1. To measure the proportion of children not-biologically related to the household's family, the household surveys provide information about household positions in terms of being a son or daughter of the head of household, as well as being an adopted or not-biologically related child of the household head. I divided the number of children not-biologically related to the head of household by the total number of children (biological sons, biological daughters and not-biologically related). The variable can range from 0 to 1. Lastly, the presence of male relatives was measured by taking the number of male household members aged 15 to 21 and dividing that number by the total number of household members in that age group. Logically, this variable also can range from 0 to 1. For each of the three variables in this section, some of the women have no scores because the variables are not applicable; the data are 'inexistent'. In those cases, the women for whom no data were available were given the average scores of the women of whom we have information on those variables (see Section 4.4.3).

The type of methods, models, estimation techniques and data sources used in this chapter are identical to the ones described in Chapter 5 and used in Chapters 6 and 7.[109] Only new

Table 8.2 Multivariate four-level logistic regression analysis, including household configuration variables, with the logged odds of being non-agriculturally employed as dependent variable

	range	coefficients	s.e.
Household roles & needs			
Number of adult women	1 - 22	0.079 ***	0.011
Number of elderly	0 - 5	-0.040 *	0.017
Number of adult men	0 - 16	-0.054 ***	0.010
Control: Number of household members	1 - 69	-0.028 ***	0.005
Household position (ref = partner of hhh)			
Head of household	Dummy	0.307 ***	0.036
Other position	Dummy	-0.016	0.024
Sex hierarchy & lineage			
Proportion male children	0.00 - 1.00	-0.061 **	0.020
Proportion children not-biologically related to hhh	0.00 - 1.00	0.263 *	0.106
Proportion male among 15 -21 age group	0.00 - 1.00	0.046	0.033
Children and household head			
Children (ref = no children)			
1 or 2, older than 5	Dummy	-0.031	0.025
3 or 4, older than 5	Dummy	-0.183 ***	0.041
5 or more, older than 5	Dummy	-0.466 **	0.148
1 or 2, at least 1 younger than 6	Dummy	-0.185 ***	0.022
3 or 4, at least 1 younger than 6	Dummy	-0.250 ***	0.030
5 or more, at least 1 younger than 6	Dummy	-0.292 ***	0.045
Partner present (ref = no partner)	Dummy	-0.788 ***	0.026
Presence male breadwinner (ref = no)	Dummy	-0.055 *	0.025

* p<0.05 ** p<0.01 *** p<0.001; N_i = 295,777; N_h = 226,676; N_d = 383; N_c = 28; The DIC of the multivariate model: 235,429.38
The coefficients presented are all part of a larger model, which is identical to Model 4 from Table 6.2. The only difference is the addition of the household structure variables as they are presented here. In appendix 8.1 the other coefficients are given. The models are based on MCMC estimation, starting from IGLS models weighted for in-country and between-country representativeness.

110 Of the other variables, traditional household structures and the societal norm on public presence decrease somewhat in size. Since these are related in the way they are measured, this decrease is not surprising. Moreover, it does not lead to substantially different conclusions. Also, the effect of economic development becomes less negative, but is still negative and significant at the 5% level. Moreover, the societal traditionalism variable shows a significant positive effect now, and the effect of light manufacturing has become significant. Similar observations were made in Chapter 6.

111 The IGLS model in Appendix 8.2 shows fewer significant relationships for the 'having children' dummies. Nevertheless, the trend is negative and the dummies for having five or more children show the largest coefficients and are statistically significant (p<0.05).

112 This is given a constant number of household members. If the man or woman is additional, then also the effect of household size has to be taken into account. On the other hand, holding the overall household size constant, for each additional woman in a household another household member disappears. All other household members' presence seems to have a negative effect on women's employment. The presence of an additional men or elder person, comes 'at the cost' of a household member that can have either a negative effect on women's employment or a positive effect.

113 The overlap between having no partner and being head of household is moderate and does certainly not cause any multicollinearity problems. Of the women who are head of household, roughly half has no partner (of the women with partner, only 4% is head of household though). Also the effect of having a partner shows only a small decline in coefficient after including the household position variables, indicating that the effects are different and largely independent.

variables were added to the final model presented in Chapter 6 (Table 6.2, Model 4). The results presented in this chapter are thus controlled for the factors discussed in Chapter 6, including a variable indicating whether or not the household was extended and/or polygynous. To test the last hypothesis I have formulated above, I also reran the full model only for women aged 15 to 21 (55,903 women). The figures representing the effects in probabilities are based on the regression formula using the averages on all variables but the one of interest.

8.4 RESULTS

Table 8.2 presents the results of the multivariate regression analysis. The coefficients of the other variables in that model are provided in Appendix 8.1.[110] The Deviance Information Criterion (DIC) of this model is 235,429.38, which is considerable lower than the DIC of the model presented in Chapter 6, and the model thus explains more of the variation. In order to interpret the strength of the new household configuration variables, the more classic ones (having children and presence of partner or male breadwinner) are also presented in Table 8.2. The effects of having children and being married show the same signs and the effects are basically of similar strength as previously found: the more children, the lower the employment likelihood;[111] and women without a partner have higher employment likelihoods. The effect of the head of household being a working age man decreases however substantially after the inclusion of the presence of adult men and the household position variables. Still, this indicates that economic needs are important and that women are only secondary workers.

8.4.2 HOUSEHOLD ROLES & NEEDS

In the 28 countries studied, there is a substantial and highly significant effect of the number of women present in the household. The odds of women's employment increase by 9% for each additional woman aged 15 through 60 in the household. Figure 8.1 shows this effect in probabilities for a woman in a household of six (the average household size). In the same figure, we find the effect for the number of adult men. This variable showed the expected sign and was also statistically significant ($p<0.001$). The odds of employment decrease by about 5% for each additional adult man. Overall, if the household size is kept constant, the effect of the presence of adult women seems somewhat larger than that of men (Figure 8.1).[112]

For the number of elderly people a negative effect was expected and a moderate negative effect was found: a decrease of 4% in the odds on employment for each additional elderly person; however, this effect was only significant at a 5% level, which is rather weak given the number of cases in these models.

The household position is the last factor in this cluster. The results clearly show that women who are the head of the household indeed have higher probabilities of being employed than the other two groups.[113] The difference between being the head or partner of the head of household entails an increase of employment odds of 36%. While this is in line with the hypothesis, the position of women who are neither head of household nor the head's spouse is not significantly or substantially different from women who are a spouse of the household head. It seems that economic needs weigh heaviest on women who are household heads. The other women (head nor spouse) – mainly own and in-law daughters and granddaughters (see Figure 8.2) – do not enter the labour market more often, and it seems that spouses of the head of household have no greater care responsibility than these women (after controlling for having children).

Overall, the model confirms that household configurations next to the presence of children and being married do influence women's employment (see Box 8.3 for the hypotheses and outcomes). The care load of women in the household seems to increase with the number of children and to some extent the presence of elderly people, but it is reduced by the number of adult women. Simultaneously, it is important how many other providers of economic means are present (partner, adult men) as these influence women's employment propensity negatively.

8.4.3 SEX HIERARCHY & LINEAGE

Three variables were expected to tap into the consequences of patriliny. Firstly, I did find the expected negative effect for proportion of children that are boys ($p<0.01$). In other words,

Figure 8.1 Employment probability by number of adult women and men in a household of six

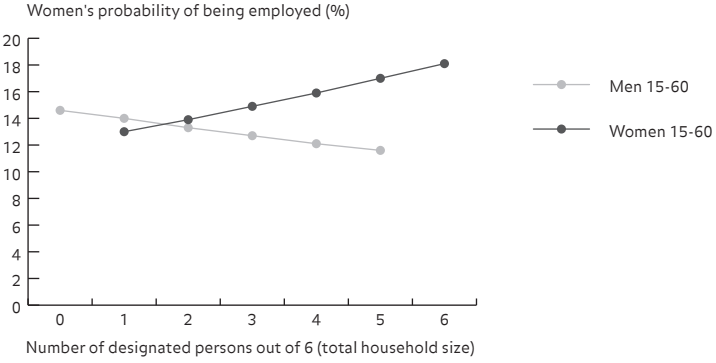
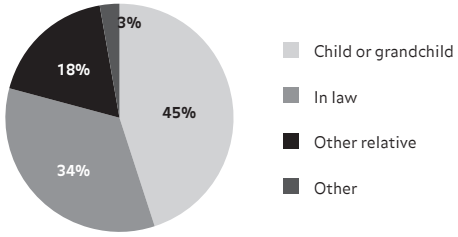


Figure 8.2 Relation to head of household if not head or partner



Box 8.3

8.1 To the extent that the number of adult women in a household increases, the greater the probability of a woman in that
✓ household to be gainfully non-agriculturally employed.

8.2 To the extent that the number of elderly people in a household increases, the smaller the probability of a woman in that
? ✓ household to be gainfully non-agriculturally employed.

8.3 To the extent that the number of adult men in a household increases, the smaller the probability of a woman in that
✓ household to be gainfully non-agriculturally employed.

8.4 If a woman is the head of household, the probability that she is gainfully non agriculturally employed is greater than if she
✓ is not the head of household.

8.5 If a woman is the partner of the head of household, the probability that she is gainfully non-agriculturally employed is
x smaller than if she is not the partner of the head of household.

114 These opposite effects can be found in one household, meaning that the extension of a household with an elderly person does not change the overall balance of care or of economic means. It is also possible that in some cases the presence of elderly people mostly increases the demand, while in other cases it increases the supply. Statistically, this would lead to the same coefficient close to zero, because the average effect is similar. Further empirical research might tell what the situation is. The section on the different patriarchal bargains will provide a first indication of what in fact is the case.

women living in households with relatively more boys than girls are less probable to be employed. However, this probability is only slightly lower. In a household with three children under 12, all of which three are male, a woman's odds of employment are 4% lower than if only one of them is a boy.

The effect found for the proportion of children who were not-biologically related to the head of the household also works in the expected direction, though whether this is a true effect is less certain ($p<0.05$). For women living in households with four children, the odds of employment increase with 7% if a household with four descendants of the head of household is compared to a household with three descendants and one other child. Given the low number of households with children that are not-biologically related to the head of household (13,109; 4.4%), I tend to be lenient on the significance criterion and conclude that the presence of biologically-related children is more inhibiting for women to enter the labour market than that of children not part of the biological family line.

The third variable, the proportion of young relatives that are male, which was expected to tap into the gendered division of resources, showed neither a significant effect nor a substantial one. The model was rerun on the 55,903 women aged 15 to 21, but no statistically significant effect for this variable was found in that model either.

Overall, in these 28 countries, sexual hierarchy and lineage variables do impact women's employment, but somewhat less strongly and with less certainty than the 'household roles & needs' factors. The results are summarised in Box 8.4. Primarily, it is the kind of children that are present in the household that seems to make a difference: boys that are part of the hereditary line relate to higher care loads and lower employment rates. The hypothesis on the gendered resource distribution is not supported.

8.4.4 PATRIARCHAL HOUSEHOLD STRUCTURES IN 28 COUNTRIES

After assessing the employment likelihoods of women through the households they live in, several general conclusions can be drawn for the 28 countries studied here. The overall balance between the care demand and supply and between the economic demand and supply seems highly relevant in shaping a woman's decision to enter the labour market or not. In terms of both the economic and the care *supply*, the genderedness of household roles informs the influence of household configurations on women's employment likelihood. It is not only relevant whether a woman is married, the presence of other men (household head, other adult men) and other women (adult women) also shifts the relative responsibilities of a woman, as these other household members contribute to alleviating the household's economic needs or the care burdens in the household. The demand for economic means and care seems for a substantial part determined by the presence of children, but the presence of elderly people also seems to have some influence. The relatively weak effect might mean that elderly people (aged 61 and up) do not singularly increase the care demand; they might also increase the economic demand or care supply, both of which are expected to increase women's employment (see for instance Ogawa & Ermisch, 1996).[114] Finally, the results here suggest that the impact of the presence of children on women's employment is to some extent determined by whether the children are male and/or part of the hereditary line of the household. If either or both of these is the case, women seem more restricted in leaving the household for a job. Overall, the division of labour in the household and to some extent the importance of male lineage, seem to influence women's duties and possibilities. Consequently, the configuration of the household a woman lives in is relevant in understanding her employment decisions.

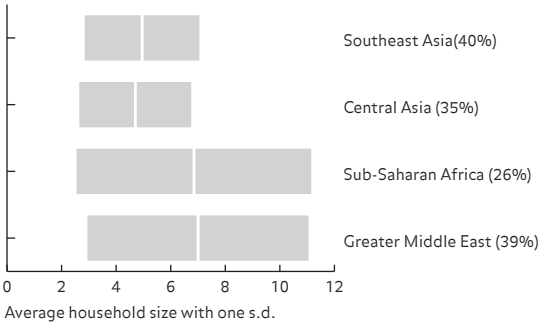
8.5 DIFFERENT PATRIARCHAL BARGAINS

It is the classic patriarchal bargain or regime that is referred to when discussing women's position in conjunction with Islam and patriarchy, and this type of patriarchy is derived from the practices and discourses in the 'cradle of Islam': the Middle East. However, as I have already argued in this thesis, it is a bit too simplistic to consider all Muslim countries to be similar. This also applies to the idea of the extended family and related household configurations. As shown in Figure 8.3, the incidence of extended families is around 40% in the Greater Middle East and Southeast Asia,

Box 8.4

8.6 To the extent that the proportion of children that is male in a household increases, the smaller the probability of a woman
✓ in that household to be gainfully non-agriculturally employed.
8.7 To the extent that the proportion of children who are non-biologically related to the household's family increases, the
✓ greater the probability of a woman in that household to be gainfully non-agriculturally employed.
8.8 To the extent that the number of young male relatives of a young woman in a household increases, the smaller the
x probability of a young woman in that household to be gainfully non-agriculturally employed.

Figure 8.3 Household size by region



35% in the Central Asian countries, and about 25% in Sub-Saharan Africa. Simultaneously, the average household size is about 7 members in the Greater Middle East and Sub-Saharan Africa and 5 in Central and Southeast Asia (with much less variation). The differentiation in the regions mentioned here is based on a closer look at the literature on patriarchy and gender regimes, which shows that roughly four groups of countries can be distinguished as distinct clusters. This point of departure will be elucidated below and the different patriarchal bargains found in these regions are used as different contexts in which household configurations can have a different impact. In short, after the first step above, testing whether general and overall relationships between household configurations and women's employment exist, I will now shift my focus towards the notion of the embedded interrelatedness of these relationships.

8.5.1 FOUR TYPES OF PATRIARCHY

One of the core studies on which the concept of classic patriarchy above was based is the Kandiyoti's 1988 study, "Bargaining with patriarchy", Kandiyoti herself, however, already draws attention to differences in patriarchal regimes between the MENA and Sub-Saharan Africa, and in a footnote also mentions Southeast Asia as a region with yet another patriarchal bargain (286–7, footnote 2; see also Hatem, 1987). Other studies also suggest that another gender regime is dominant in Southeast Asia (e.g. Dube, 1997; Ong 1991; Westwood, 1997), and similarly, Central Asian countries (the former Soviet republics) are similarly often treated as a separate group of countries (see Kapteijns, 1998; Moghadam, 1998; Spierings, Smits & Verloo, 2009; Tohidi, 1996). Based on this literature, I will try to distil the distinguishing characteristics of the gender systems in these regions, and figure out how these might lead to different effects of the factors this chapter focusses on.

GREATER MIDDLE EAST

For the Greater Middle East, classic patriarchy is considered to be typical (see Section 8.2). Briefly summarised, this means that (1) there is a strict gendered division of household roles whereby women are supposed to take care of the household and men provide the income; and that (2) male lineage is very important, meaning that in a household the male heirs of the head of the household are considered the most important and hierarchically above the other members of the household.

SUB-SAHARAN AFRICA

The gendered division of labour in Sub-Saharan Africa appears to differ in several important aspects from the situation in the Middle East, and the literature hardly refers to patriliniality here. The latter suggests that patriliniality is absent or much weaker than in the Middle East, meaning that the effects of patriliny variables are expected to be weaker in Sub-Saharan Africa than those found for the Greater Middle East.

Regarding the division of labour, women have historically been active in the (agricultural) economy before the development of cash crops for export, and several sources mention the horticultural background (cultivating a diversity of crops) that contributed to giving women a role in the subsistence economy. Due to this economic participation of women and the access they have (had) to their own plot of land, working is considered more suitable for women compared to for instance the Greater Middle East (Bullock, 1994; Jaquette, 1982; Lenski and Nolan, 1984; Spierings, Smits & Verloo, 2009). Moreover, working on one's own plot can also have priority over working on a man's land, and men cannot always claim women's labour (Kandiyoti, 1988), which indicates a somewhat different and less comprehensive sex hierarchy.

Two important consequences can be derived from this. Firstly, economic needs seem to be prioritised slightly over care needs, at least compared to the prioritisation in classic patriarchy. Consequently, the presence of additional care-needy household members (children and elderly people) can have a less strong negative impact on women's employment because the additional economic needs of feeding more mouths push women onto the labour market. Secondly, because women in Sub-Saharan Africa have historically been considered economic actors who contribute to the household income, the divide between them and male household members is less strong

or strict, and the difference between male and female household members accordingly smaller. Consequently, the sex of other household members can be expected to be less important.

CENTRAL ASIA

In the literature on Central Asia two historical developments are often noted when it comes to the system of patriarchy. Firstly, that the Soviet legacy has resulted in an emphasis on public equality and a dominant discourse of 'everybody works', including women. After the collapse of the USSR in 1991, traditional Islamic values are said to have re-emerged and new emphasis was put on women's care duties, and women now often experience a double burden (Edgar, 2006; Kapteijns, 1998; Tohidi, 1996; Wejnert & Djumabaeva, 2005).

This combination of egalitarian employment attitudes but still relatively strong gendered roles in household tasks (in particular care) can be expected to influence the effect of the presence of care-demanding household members. The starting point might be that it is relatively accepted and desired that women are employed; the (return of) strong care roles for women however means that they can be expected to be pulled back into the household once children are present. For women with children, the social pressure from traditional norms will be strongest; women without children can remain employed, as was customary under Soviet rule (cf. Tohidi, 1996: 114). This would mean that the effect of having children is relatively strong in Central Asia as compared to the Middle East. It could be expected that this effect is also found for the presence of elderly people in households, but it can also be imagined that the re-emergence of religious norms mainly centre on motherhood, and thus I expect that the effect is much stronger for children.

As was the case with Sub-Saharan Africa, the literature does not mention a strong patrilineal system in Central Asia. Again, I conclude that this aspect of classic patriarchy is less present in Central Asia and consequently factors related to patriliny can be expected to have less to no effects in Central Asia.

SOUTHEAST ASIA

The literature on Southeast Asia mostly draws attention to the ways in which the sex hierarchy and lineage is deviant from the classic patriarchy model. The dominant system in Southeast Asia is one of bilateral kinship or inter-generational family perpetuation, in which women have some autonomous claims on income (see Dube, 1997: 2; Ong, 1991: 288; Westwood, 1997: 457). Because there is relatively less of a focus on male lineage, we can expect that the variables related to the hierarchy of the sexes and lineage have particularly weak or no effects for the countries in this region.

Furthermore, it is observed that (often young) women have taken the opportunity to enter the labour market presented by the inflow of foreign industries (Chinese, Japanese, and Western). Part of the literature's explanation for this development is that these women tried to better their position, which was possible because they can make claims on property and resources and are able to control (parts of) their income themselves. If it is the case that in practice women have a greater say over their own income, it becomes more profitable for them to enter the labour market and it can be expected that more women want to do so. This implies that if the care duties in the household – for which women are still responsible – are (partly) lifted, more women should enter the labour market than in the other regions. Consequently, the presence of adult women might be more important in this system, and the presence of men less, while the effect of having children might be stronger.

8.5.2 TESTING HOUSEHOLD STRUCTURE'S EFFECTS IN FOUR REGIONS

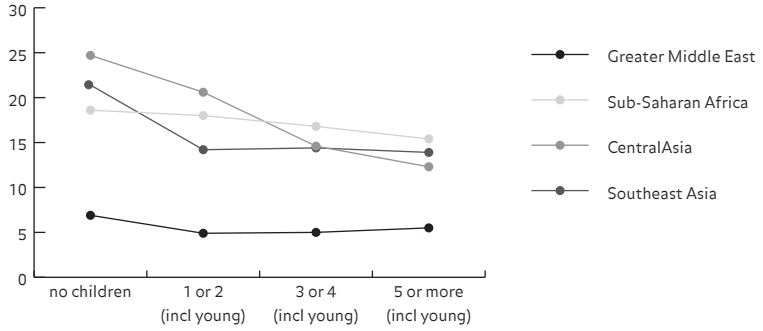
The primary goal here is estimating whether and how effects of household structures on women's employment differ by each region's patriarchal bargain. Before I can discuss the results, some methodological remarks should be made about the statistical modelling.

There are basically two options in modelling the different effects. Firstly, the model as presented in Table 8.2 can be estimated for the four groups of countries separately. The advantages of this are that for each of the coefficients it is clear whether explanatory variables

Box 8.5 Country classification of patriarchal region

Greater Middle East		**Sub-Saharan Africa**	
Algeria	Egypt	Burkina Faso	Chad
Jordan	Lebanon	Djibouti	Eritrea
Mauritania	Morocco	Guinee	Mali
Pakistan	Tunisia	Niger	Nigeria
Turkey	Syria	Senegal	Sierra Leone
Yemen		Zanzibar	
Central Asia		**Southeast Asia**	
Azerbaijan	Kazakhstan	Bangladesh	Indonesia
Kyrgyz Republic		Malaysia	

Figure 8.4 Employment probability by the number of young children per region



115 Also, but less relevant to this chapter, the number of district and country-level units decreases substantially.

116 With three different models it is possible to test all the differences between regions; however, to see whether the effects of the household structures are significantly different from zero, I need to estimate four models.

117 In the case of the separate models for the four regions, although the number of district and countries decreases substantially, the explanatory factors at those levels are retained and the models will remain four-level models. The results of the macro variables are not discussed here but will be taken into account in the concluding chapter.

The estimations using the alternative weighted IGLS procedure have been estimated for the region-specific models. The results can be found in Appendix 8.4, and are referred to in the interpretation if important differences were found.

118 Also the weights in the IGLS models – from which the MCMC estimations start – are adjusted so that the total number of cases per region equals the actual number of respondents per region.

119 Not only the coefficients in Table 8.3 are used; I also include the coefficients found in the interaction models to check robustness.

120 The coefficients for these regions are not the largest coefficients. However, they are most certain. Partly this might be explained by the far larger number of respondents for the Greater Middle East compared to for instance Central Asia where larger coefficients are found but the number of cases is smallest (about one tenth of the number of cases in the Greater Middle East model).

121 This is even stronger in the weighted IGLS model (Appendix 8.4).

have a significant effect for that group of countries. Furthermore, the estimation is rather straightforward. Disadvantages are that it is less clear whether coefficients for the different regions differ from each other.[115] The second option is to rerun the standard model and include interaction terms with dummies for the regions. Contrary to the other option, this shows whether the household structures have significantly different effects across regions. The disadvantage, however, is that this should be done fourfold.[116] Normally, this would lead to four equivalent models, but the four differently estimated models are not completely the same when the MCMC estimation is used. Given the different constraints of the two options, I have chosen to use both estimation techniques.[117]

The 28 countries are divided over the four groups or regions as shown in Box 8.5. This grouping is done in line with the literature discussed above and the generally accepted geographical classifications. For the figures, average values are taken on the explanatory variables that are not of interest to that figure (see Section 8.3), but these averages are calculated separately for each region.[118]

8.5.3 RESULTS

Table 8.3 presents the coefficients of the models estimated per patriarchal bargain. It shows most clearly for which region certain variables were found to be significantly related to women's employment. The somewhat larger and more complex Appendix 8.3 presents the coefficients of the interaction models, which test the difference in coefficients. Below, I shall discuss the effects on women's employment per region and how these vary.[119] The results are here presented per variable. In the next section (8.5.4), the overall picture will be discussed per 'patriarchal bargain'.

Let us start with the 'classic' household configuration variables. Broadly speaking, a similar pattern was found for all regions: if the number of children goes up, the coefficients become more negative, indicating that the number of children negatively relates to women's propensity to be employed. However, for older children these effects were only found to be significant in the Greater Middle East and to some extent Southeast Asia ($p<0.05/p<0.01$).[120] The significant differences between the regions also indicate that the Greater Middle East most stands out regarding the effect of older children. Of the nine statistical significant differences ($p<0.05$; the italicised coefficients in Appendix 8.3) seven differ between the Greater Middle East and another region. Moreover, the results presented in Appendix 8.3 hint at a positive effect on women's employment of having one or two older children (compared to having none) in Sub-Saharan Africa.[121]

The presence of younger children (compared to having none) decreases women's employment likelihood in all regions, but the effects clearly differ by region. In Sub-Saharan Africa the effects are weaker than in the other regions (with almost all coefficient being significantly smaller – see Appendix 8.3). The effects in Central Asia appear to be substantially larger, and of the 18 tested interaction coefficients, all but one point in the same direction and 12 of these are statistically significant ($p<0.05$). These differences in effects are also reflected in Figure 8.4, but the conversion into probabilities for 'the average woman' seems to weaken the difference. However, it should be considered that an eyeball analysis of the graph means mostly looking at changes in percentage points, which does not take into account that the drop in probabilities is relatively stronger in the Greater Middle East than in Sub-Saharan Africa. Overall, I tend to conclude that the effect of having young children is strongest in Central Asia and weakest in Sub-Saharan Africa, but the difference of the latter with the Greater Middle East should not be overestimated. These two patterns explain 22 out of the 23 found significant differences in effects.

In each of the four regions, women with a husband present were less likely to be employed than women without a spouse. The difference was smallest in Sub-Saharan Africa. The figure with probabilities (Figure 8.5) nicely illustrates that the gap between women with and without partner in Sub-Saharan Africa is small compared to that in the other regions. The differences between the latter three are relatively small, but in terms of logged odds they are significant (Appendix 8.3): the effect is largest in the Greater Middle East, followed by Southeast Asia and then Central Asia. The presence of a male breadwinner shows no robust significant effect in any

Table 8.3 Logistic regression results for models of gainful non-agricultural employed, women aged 15–49, neither in school nor disables, in four

	Model 0: all countries (see Table 1)		Greater Middle East	
	Log odds	**s.e.**	**Log odds**	**s.e.**
Household roles & needs				
Number of adult women	0.079 ***	0.011	0.056 ***	0.015
Number of elderly	-0.040 *	0.017	-0.102 ***	0.029
Number of adult men	-0.054 ***	0.010	-0.077 ***	0.017
Control: Number of household members	-0.028 ***	0.005	-0.046 ***	0.008
Household position (ref = partner of hhh)				
Head of household	0.307 ***	0.036	0.349 ***	0.074
Other position	-0.016	0.024	-0.043	0.057
Sex hierarchy & lineage				
Proportion male children	-0.061 **	0.020	-0.043	0.035
Proportion children not-biologically related to hhh	0.263 *	0.106	0.927 **	0.302
Proportion male among 15 -21 age group	0.046	0.033	0.080	0.051
Children and household head				
Children (ref = no children)				
1 or 2, older than 5	-0.031	0.025	-0.030	0.044
3 or 4, older than 5	-0.183 ***	0.041	-0.195 **	0.067
5 or more, older than 5	-0.466 **	0.148	-0.496 *	0.213
1 or 2, at least 1 younger than 6	-0.185 ***	0.022	-0.372 ***	0.049
3 or 4, at least 1 younger than 6	-0.250 ***	0.030	-0.352 ***	0.057
5 or more, at least 1 younger than 6	-0.292 ***	0.045	-0.238 ***	0.076
Partner present (ref = no partner)	-0.788 ***	0.026	-1.387 ***	0.052
Presence male breadwinner (ref = no)	-0.055 *	0.025	-0.084	0.043
Model statistics				
Intercept	-6.085 ***	0.126	-5.912 ***	0.177
Country-level variance	1.172 **	0.364	1.395	0.834
District-level variance	0.370 ***	0.031	0.224 ***	0.031
Household-level variance	2.099 ***	0.047	2.245 ***	0.045
N	295,777		134,514	
Deviance	235,429.38		78,879.46	

*p<0.05 ** p<0.01 *** p<0.001; Notes: All models are controlled for education, age, living in a city, partner's occupation and education, age difference with partner, age at birth first child, living in a polygynous household and context variables (see Chapter 4 and Chapter 6).

different geographical regions among Muslim countries

Sub-Saharan Africa		Southeast Asia		Southeast Asia	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Log odds**	**s.e.**
0.042 **	0.017	0.266 ***	0.042	0.198 ***	0.027
-0.033	0.019	0.056	0.052	0.090 **	0.035
0.003	0.011	-0.087 *	0.039	-0.021	0.026
-0.010	0.006	-0.134 ***	0.020	-0.075 ***	0.015
0.201 ***	0.047	0.262 *	0.108	-0.016	0.093
-0.076	0.034	0.238 *	0.095	-0.085	0.055
-0.072 *	0.029	0.005	0.064	-0.072	0.039
0.029	0.097	1.080 *	0.457	0.289	0.260
-0.091 *	0.039	0.401 ***	0.098	0.041	0.057
0.017	0.038	-0.010	0.071	-0.148 **	0.046
-0.083	0.055	0.227	0.136	-0.214 *	0.100
-0.183	0.219	-1.889	1.395	-0.342	0.780
-0.037	0.027	-0.233 **	0.088	-0.496 ***	0.053
-0.124 ***	0.034	-0.647 ***	0.149	-0.481 ***	0.073
-0.225 ***	0.043	-0.846	0.557	-0.525 **	0.160
-0.203 ***	0.030	-1.094 ***	0.131	-0.992 ***	0.075
-0.053	0.028	0.064	0.076	-0.110	0.057
-5.300 ***	0.124	-7.611 ***	0.331	-1.518 ***	0.100
0.285	0.188	3.207	9.997	0.142	0.950
0.489 ***	0.124	0.085 *	0.037	0.096 ***	0.025
0.779	0.697	0.041 *	0.017	0.950 ***	0.069
101,648		14,332		45,283	
99,865.72		14,274.02		43,833.61	

Figure 8.5 Employment probability by having a partner per region

Women's probability of being employed (%)

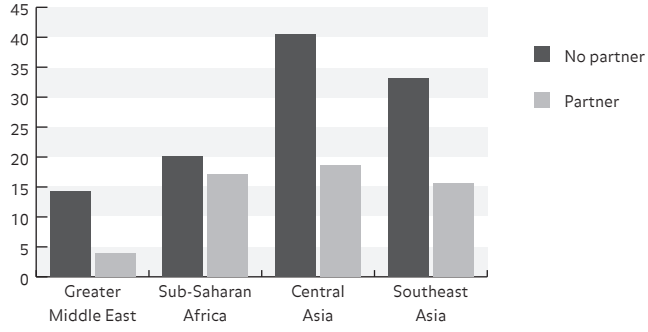
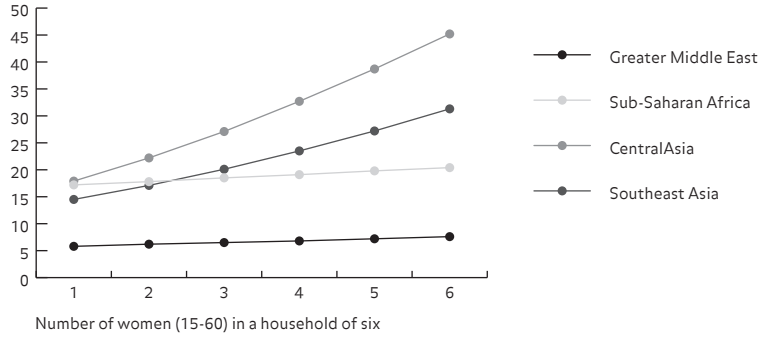


Figure 8.6 Employment probability by number of adult women in the household per region

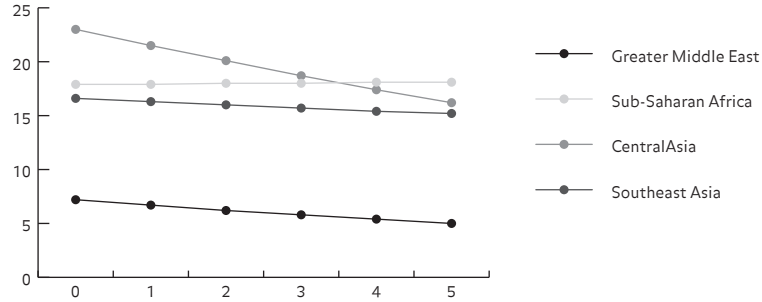
Women's probability of being employed (%)



Number of women (15-60) in a household of six

Figure 8.7 Employment probability by number of adult men in the household per region

Women's probability of being employed (%)



Number of men (15-60) in a household of six

122 In Soviet Central Asia (equal) economic participation was the norm; in Sub-Saharan Africa women were active on their own land and had some economic rights; and in Southeast Asia women had more economic rights and room to enter manufacturing industries.

of the regions. This is pretty much in line with the overall model for all countries (Table 8.2), in which the effect was small and weakly significant taking into account the large number of observations.

For the household roles & needs variables considerable differences as well as similarities were also found. The presence of other working-age women in the household seems to have a positive effect in all regions. Only for Sub-Saharan Africa the results are somewhat less robust (Appendices 8.3 and 8.4). The effects are significantly smaller in Sub-Saharan Africa and the Greater Middle East than in the other two regions (Figure 8.6). Furthermore, in Central Asia the influence is significantly larger than in Southeast Asia. In Central Asia, this factor seems to have a truly strong impact. In the region where women's roles prohibit labour market activities the most (the Greater Middle East),122 the presence of other women makes the smallest difference; and in the region in which women have a historical place in the formal labour force (Central Asia), the positive effect of an additional woman is largest. If the presence of other women decreases the care burden this seems most beneficial in a context in which paid labour outside the home is accepted. Women in these environments can take advantage of the reduced responsibilities or newly acquired 'spare' time. If they are only seen as carers, an additional caregiver does not make much difference.

The presence of elderly people cannot be universally reduced to additional care needs. In the Greater Middle East we indeed see a negative effect on women's employment, but not in any of the other regions and this difference is significant as well. The results for Southeast Asia even hint at a positive effect ($p<0.01$), but this was neither found in the interaction models, nor did its coefficient differ significantly from Sub-Saharan Africa and Central Asia, where no such effect was found. It could be that in the Greater Middle East where elderly people are held in reverence, they are not expected to contribute to household tasks (and will thus mainly lead to a care demand), while in the other regions the elderly also provide care (e.g. Ogawa & Ermisch, 1996), leading to a care balance-neutral effect. These different results in the regions could also explain why the overall effect was very weak.

For the presence of adult men, a negative effect was found for the Greater Middle East and Central Asia (though less robust there), and even though the effect in the Greater Middle East seems rather similar to the (insignificant) effect in Southeast Asia, the effects in Central Asia and the Greater Middle East differ significantly from the other two regions for seven of the eight possible interaction coefficients (Appendix 8.3). Adding up the results presented in the Appendix and the calculations in Figure 8.7, it seems that the effect is stronger in the former Soviet countries than in the Greater Middle East, certainly in terms of percentage points. Again this seems to indicate that in the context of a more strict gender role division the exact household configuration context makes less of a difference, while it can be very important in contexts where women are not solely seen are caregivers.

Lastly, in this cluster of variables we find the influence of the position in the household. In Southeast Asia the position of a woman does not make much of a difference, but this region differs significantly from the three others (Appendix 8.3). In the other regions, being the head of the household increases the employment probability of women compared to being the head of the household's spouse, though for Central Asia the results are less robust in terms of significance ($p<0.05$ & $p<0.01$). For the Greater Middle East it is also found that women who are neither head of the household nor the partner of the head have employment probabilities similar to partners of the head of the household. This fits the reasoning that women mainly have economic responsibilities if they are head of the household, and in any other position they occupy do not. Figure 8.8 indicates that this is different in Central Asia but similar in Sub-Saharan Africa. The difference found for Central Asia, however, is only significant at the 5% criterion and the additional models do not show any effect in this direction (Appendix 8.3). On the other hand, the additional models for Sub-Saharan Africa tend to indicate that other household members have significantly lower employment likelihoods than the spouse of the head of the household. Overall, it is safe to conclude that for all regions, save Southeast Asia, the major difference is found between women as heads of household and all other women, with similar differences in the Greater Middle East, Sub-Saharan Africa and Central Asia.

Figure 8.8 Employment probability by a woman's household position per region

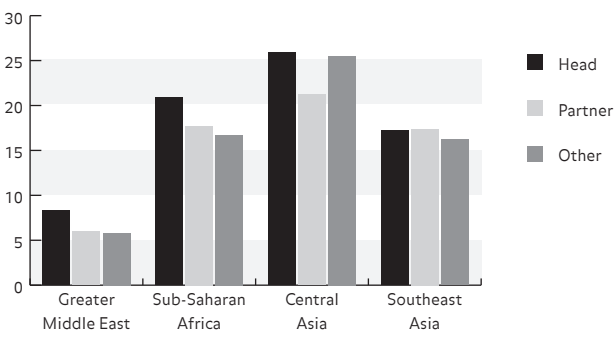
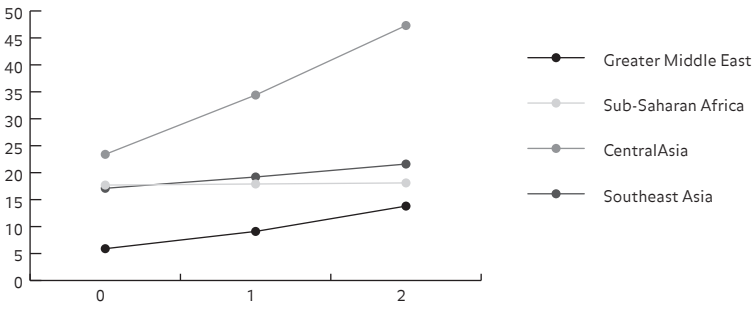


Figure 8.9 Employment probability by 'kind of children'



Number of children that is not biologically related to the head of household (total number of children = 2)

Box 8.6: Hypotheses assessed per region/patriarchal bargain

		Region			
	Total	**GME**	**SSA**	**CA**	**SEA**
Hypothesis					
H8.1 Adult women (+)	✓	✓	✓	✓	✓
H8.2 Elderly (-)	? ✓	✓	x	x	x
H8.3 Adult men (-)	✓	✓	x	✓	x
H8.4 Head of Household (+)	✓	✓	✓	✓	x
H8.5 Partner head (-)	x	x	x	x	x
H8.6 Boy/girl ratio children (-)	✓	x	?	x	x
H8.7 Line/not line children (+)	✓	✓	x	✓	x
H8.8 Brothers (-)	x	x	x	x	x
H3.1 Partner/breadwinner (-)	✓	✓	✓	✓	✓
H3.2 Children (-)	✓	✓	✓	✓	✓

The classification in this Table is based on the overall picture derived from all models as presented in Appendix 8.2.

123 Another reason for this strong resemblance is that the Greater Middle East provides 45% of the cases of the whole sample of the four regions and thus has the most influence on the overall results.

The last group of micro-level patriarchy variables is related to sex hierarchy & lineage. Firstly, the small and relatively weak effect found for the sex ratio among children overall is not robustly significant for any region, except Sub-Saharan Africa. However, even for that region, the effect is very small, not strongly significant, and it does not differ significantly from the other regions. It does work in the expected direction though: having relatively more boys decreases women's employment likelihood. The odds of employment are 4.7% lower for a woman in a household with three boys and no girls (<12) compared to one living in a similar household with one boy and two girls.

Secondly, the fact that the effect of the presence of children not-biologically related to the head of household was moderate in the overall analysis seems to be due to a strong difference between the four regions. In Sub-Saharan Africa and Southeast Asia no (significant) effects were found (the relatively flat lines in Figure 8.9), while the effect in the Greater Middle East is relatively strong and highly significant ($p<0.01$), as well as significantly different from the effect in Sub-Saharan Africa and Southeast Asia. The effect in Central Asia is even stronger than that in the Greater Middle East, but it is less certain ($p<0.05$, and $p<0.01$ in the interaction model). In the Greater Middle East and Central Asia, keeping the number of children constant, women in households with fewer children biologically related to the household head have higher employment likelihoods.

Lastly, the expectation on the ratio of male/female siblings was neither reflected in the overall results nor in the region-specific models. Two regions show a (weakly) significant effect in Table 8.3, but rerunning the analyses on the subgroup of only women aged 15 through 21 did not confirm these results.

8.5.4 PATRIARCHAL BARGAINS NEWLY UNDERSTOOD

Talking about an overall Islamic patriarchal bargain seems empirically unjustified. The Middle East can be the cradle of Islam, but not all Muslim countries have copied the patriarchal bargain found there. In other chapters this has been or will be shown by the contextual-level variation and the influence of differences in the institutionalisation of (religiously motivated) traditionalism. The analyses in this chapter additionally show that household configurations have different effects in the four 'Muslim regions' distinguished here. Given this difference and starting from a Middle Eastern ideal-typical patriarchal bargain, it is not surprising that the effects found overall are mostly reflected in the following results for the Greater Middle East (see Box 8.6).[123] That the presence of more and younger children, as well as more elderly people decreases women's employment likelihood and that the presence of more adult women increases it, indicates that women are primarily care providers. Similarly, the fact that the presence of a partner and more adult men decreases women's employment likelihood, and being head of the household increases it indicates that men are first and foremost responsible for providing an income and that women only become income providers if the men in a household are not capable of earning a sufficient income. This strict division of household roles seems most strong in the Greater Middle East compared to the others. Simultaneously, the relatively weak effects found for the presence of children and the presence of other adult women also indicate that married women without children are still not expected to enter the labour market. The Greater Middle East also shows the most robust results regarding the patriliny variables. However, it is not the gender of children that seems particularly important, but whether they are part of the biological line of the family. If they are not, women are less inhibited to leave the household and enter the labour market.

The idea that in Sub-Saharan Africa patriliny is less important seems to be confirmed by these analyses, but it is possible that there is a small effect of the children's sex, with boys being more inhibiting. Regarding household roles and needs a somewhat more complex picture is found. In line with the exploratory expectations, the number of children as care demanders decreases women's employment only moderately and the increased economic needs of a household seem to overrule a (weaker) gendered division of household tasks: only when there are three or more children present, including young ones, a clear negative effect of the presence of children on women's employment has been found. Furthermore, the effect of additional adult women in

Box 8.7 Three household-role dimension of the four patriarchal bargains

Region	Income providing roles for...	Caring roles for ...	Care scope
Greater Middle East	♂	♀	All household tasks
Sub-Saharan Africa	♂ ♀	♀	Nurturing children
Central Asia	♂ ♀	♀	Nurturing (young) children
Southeast Asia	♂ ♀	♀	Nurturing children

124 In Section 5.3.1, no M-curve for these countries was found, but since it can be the case that there is no rise once children become older, the absence of an M-curve does not contradict this conclusion.

125 Also the average foster child in my data is in its early teens (between 12 and 13 years of age), which seems a bit young to be a housemaid, especially for Central Asia, but I have found no information about the ages of housemaids in these regions. In other words, this is mere guessing.

126 Here I assume that the value variables used in this thesis does not fully capture the traditionalism of a household. I think this is a safe assumption since these variables are behaviour based on not exhaustive.

the household was relatively weak, the effect of additional men was absent, and that of having a partner small. As expected, the household roles are somewhat less gendered. However, this is completely due to the different roles of women compared to the Greater Middle East; the men's roles seems similar. Men are not considered to be care providers here, only income providers, but women are considered to be providers of both care and income.

In Central Asia, especially, the effect of children was expected to be stronger than in the other regions because of the combination of a Soviet history ('women work') and the Islamic resurgence ('but not if they have children'). The results show this relatively strong effect if young children are present. From this, and the relatively strong negative effect of having a partner, it might be concluded that for women in Central Asia working outside the household is relatively normal. However, as soon as they become a wife or mother, their care roles become dominant.[124] This reasoning also explains the possible negative effect of the presence of adult men: once a woman who worked before leaves the labour market and a new economic necessity rises, the adult men (not she) become responsible for providing additional income. With regard to patriliny, a large effect was found for the biological relatedness of children, while the expectation was that patriliny variables were not important in Central Asia. One possible explanation for this contradiction is that fosterage is a way to provide for housemaids. However, in that case a similar effect should be found in Sub-Saharan Africa (see Goody, 1996), which is not the case.[125] A more plausible, albeit tentative, explanation would be that in Central Asia the less traditional families are most inclined to take care of a foster child and in those families women are also more often active on the labour market.[126] If this is true, then the found effect is spurious.

Lastly, Southeast Asia also shows no effect on the patriliny variables, and this is in line with the expectation for this region based on the literature that argues that the lineage system in Southeast Asia is more one of bilateral kinship. The strong effect of the presence of additional adult women and the moderately strong effect of having children on household roles and needs indicate that there is a major difference between women with care responsibilities and women without. As everywhere, family and care are important to a woman's position, so the presence of care needs leads to decreases in women's employment, but, as was the case in Central Asia, the starting position of women is one which includes more economically productive roles, explaining the stronger effect of changes in the care balance.

Assessing the results per region seems to confirm most of the expectations formulated in Section 8.5.1, but the differences between the regions also imply that defining the patriarchal bargains based on the two aspects used here as distinguishing characteristics – household roles and patriliny – is not optimal. The defining differences between the regions seem to centre around the care and economic balances of the households, the core questions being: who needs to be cared for, who have the care-providing roles, and of whom it is accepted to have an economic productive role even if there is no economic necessity? In this scheme the patriliny aspect, which showed relatively small effects, is integrated in the care balance aspect, since the gendered appropriation of household resources seems unimportant in influencing women's employment. Box 8.7 summarises the result by indicating which sex has economic and care roles (a larger symbol indicates that this role is primarily attached to that sex) and who or what limits women most in terms of care needed.

In the Greater Middle East, women take care of the household, children, and the elderly; men provide the income, and only when economic necessity is urgent, will women take on the economic role of income provider. In Sub-Saharan Africa, both women and men have economic roles (possibly due to generally strong economic needs), but women are still the primary care providers and children are the main care-demanding household members. Central Asia is also characterised by women and men both being active on the labour market (not only out of necessity) as long as women are not yet in a care-responsible position. But the care roles are still highly gendered and thus (only) women retreat to the household once young children are present. The care provider role seems to be less general and attached only to women in a situation were they have a position with responsibilities for others. However, it seems women might re-enter the labour market, especially when children grow older, possibly out of economic

need. This situation is largely similar to the one found in Southeast Asia, but the results suggest that the presence of children has a stronger or more lasting effect there, since older children have a larger negative effect.

8.6 CONCLUSION

8.6.1 MAIN DETERMINANTS AND CONTEXT DEPENDENCY

In this chapter, I have set out to find new factors that influence women's employment by applying the overall theoretical framework to the uncultivated terrain of household configurations – given that the nuclear family is not ubiquitous in Muslim countries – originating from the patriarchal bargains in society (see Kandiyoti, 1988; Moghadam, 1998). Based on this approach, the chapter has focused on several newly formulated hypotheses (expected relationships between brackets): the presence of elderly people (-), the presence of other adult women (+), the household position (head: +) (partner: -) (other: +/-), the number of men among adults (-), the proportion of children being male (-), the proportion of children being not-biologically related to the head of household (+), and the proportion of boys among siblings (-).

These hypotheses were firstly tested on the whole sample of almost 300,000 women (see Chapter 4), starting from the models presented in Chapter 6, but also on four subsamples representing four geographical regions which can be distinguished in terms of possibly different patriarchal bargains: the Greater Middle East, Sub-Saharan Africa, Central Asia, and Southeast Asia. As Kandiyoti (1988: 285) says, it is important "to capture the nature of patriarchal systems in their cultural, class-specific, and temporal concreteness and reveal how men and women resist, accommodate, adapt, and conflict with each other over resources, rights, and responsibilities." By exploring the differences between the regions, I have introduced a deeper understanding of the concept of patriarchy to quantitative work, which until now used the concept only very generally to designate (a) the Muslim world, (b) the patriarchal belt including the Muslim countries and South Asia, or (c) the Muslim civilisation. The understanding incorporated here draws from the conceptual qualitative literature on the concept. The results of the overall and region-specific analyses (see Box 8.2) help to answer parts of the second and third general question central to this thesis:

2) Which micro-, meso- and macro-level factors are the (major) determinants of women's employment in Muslim countries, and how do they influence women's employment?
3) Do the effects of explanatory factors of women's employment in Muslim countries differ in strength and presence according to time and space, and if they do, how and why do they differ?

One new factor, the presence of other adult women, had a strong ($p<0.001$) influence on women's employment in the overall analysis and showed a significant relationship in the expected direction in all four regions. The more adult women live in the household, the higher the probability of being employed. The effect was the strongest in Central Asia, then Southeast Asia, and the weakest in the Greater Middle East and in Sub-Saharan Africa. The presence of other women alleviates the care burden and this effect seems to be most powerful when it is more accepted that women enter the labour market, because there are fewer other obstacles once the care burden is alleviated.

Being the head of the household also has a positive effect on the employment likelihood of women in the overall analysis and in three regions (not in Southeast Asia). Economic necessity in combination with being responsible for providing the household with an income seems to push women onto the labour market in all regions but Southeast Asia. Similarly, the 'old variable' of having no partner has this effect in all regions. The same mechanism seems to be at work here, but the effects are both present after controlling for each other. These results indicate that the care role is rather strong, but it can be overruled when there is strong economic necessity and a woman is in a responsible position caused by, for instance, the absence of a partner or her being the head of the household.

Regarding the presence of other household members, two factors showed a (possible) effect in the overall analysis, which turned out to be mainly based on the strong effects the factors produced in the Greater Middle East. In this region, women's employment decreases as more elderly people or adult men are present in the household. In the Greater Middle East, the division of household roles seems most strict, meaning that other male household member are the first to provide an additional income if needed and the presence of elderly people weighs down women's care burden – which in all regions is mostly determined by the presence of (young) children – because age also strongly determines the status within the household. In other regions, elderly people seem to increase both the care demand and the care supply (and possibly also the economic demand and supply).

Three hypotheses were neither confirmed in the overall models nor for any of the regions. Firstly, as already mentioned, there seems to be no substantial difference in terms of employment between women who are spouses of the head of the household and women who are neither head nor spouse. Economic needs have roughly similar effects on both groups and possibly different care needs are caught by the variables for the presence of children and elderly. Secondly, the boy/girl ratio among children showed no substantial effect (though a small and weak significant effect was found in Sub-Saharan Africa). I would conclude that, generally speaking, boys are not more care demanding than girls. This does not mean per se that boys are not considered more important (in terms of lineage) – think of the missing girl phenomenon in, for instance, Pakistan. The absence of an effect can be explained by a mixture of this effect with the idea that girls are more fragile and get more attention or are protected more by their mothers. Thirdly, the boy/girl ratio among siblings for women aged 15 to 21 did not show the expected negative effect.

This result seems not only at odds with the hypotheses in this study but also with findings in some qualitative research. For instance, Miles (2002: 422) observes that "Several women reported their families did not help them with their job search as much as they did their brothers." And she quotes a higher-educated woman from Madaba saying: "I have two unemployed brothers so my family is not looking for me." While this indicates that resources are first used for boys (brothers) and for women second, my statistical results tend to indicate that no such general effect exists in any of the four regions. This discrepancy can have at least three reasons. Firstly, the effect might be context specific at a lower level than the geographical regions I have distinguished. Further study might shed light on the circumstances under which this effect might exist. Secondly, boys might get more assistance or resources from the family in their search for a job, but this does not mean that they are more successful in finding one. If the contribution of this household investment to getting a job is rather small, it will hardly contribute to men finding a job either. Logically, then no substantial effect turns up in statistical analyses that take employment as dependent variable. Thirdly, the woman interviewed by Miles assumes that the family will help her when her brothers have found a job, but the number of male siblings might be irrelevant to women's employment, because perhaps no resources will be used for girls, regardless of the number of young men in the household.

The last patriliny variable (biological relatedness of children) had the expected influence overall, but showed mixed effects across the regions. In Central Asia and in the Greater Middle East, it seems that if a child is a foster child it has a less strong negative impact on women's employment likelihood. I hypothesised this might be due to a (possibly subconscious) lower valuation of the care needs of these children because they are not part of the lineage of the family, and consequently women charged with caring for foster children could more easily enter the labour market. Part of this reasoning can also be that less is invested in these children and they are more often expected to do household chores and thus alleviate women's care burden (cf. Huisman, 2011). Udink (2006: 199–200), for instance, describes the youth of a local driver (Benedict) she encountered during her stay in Pakistan. He had lived in the household of his father's sister because his mother was arrested after being involved in the murder of her husband (the driver's father). Benedict was considered an additional burden ("another mouth to feed") in his new home and while his nephews and nieces were sent to school, he assisted his aunt in her work as a maid in another household. In other words, he did contribute to filling his household's

127 Comparing the two regions does indeed show that the relative number of households with no, one, or two other children besides a foster child is much higher in Central Asia than in the Greater Middle East, where many more regular children are present in households with a foster child. The average number of total children in a 'foster home' in Central Asia is 2.2, in the Greater Middle East 4.0.

economic needs, but hardly increased the care demands of the household. An alternative explanation for the found effect (coined for the effect in Central Asia) is that in more liberal families, children are more often adopted and in these families women are more often employed as well. Different explanations for Central Asia and the Greater Middle East can be linked to the descriptives presented in Figure 8.3, showing that the household size and composition is rather different in the two regions. In the Greater Middle East, families bring in a new household member dictated by social norms, while in Central Asia it might start more with the idea of adoption and then seeking a child who needs help.[127] If so, it can be expected that the effect found is related to lower levels of traditionalism and not so much the child not being biologically related to the head of household.

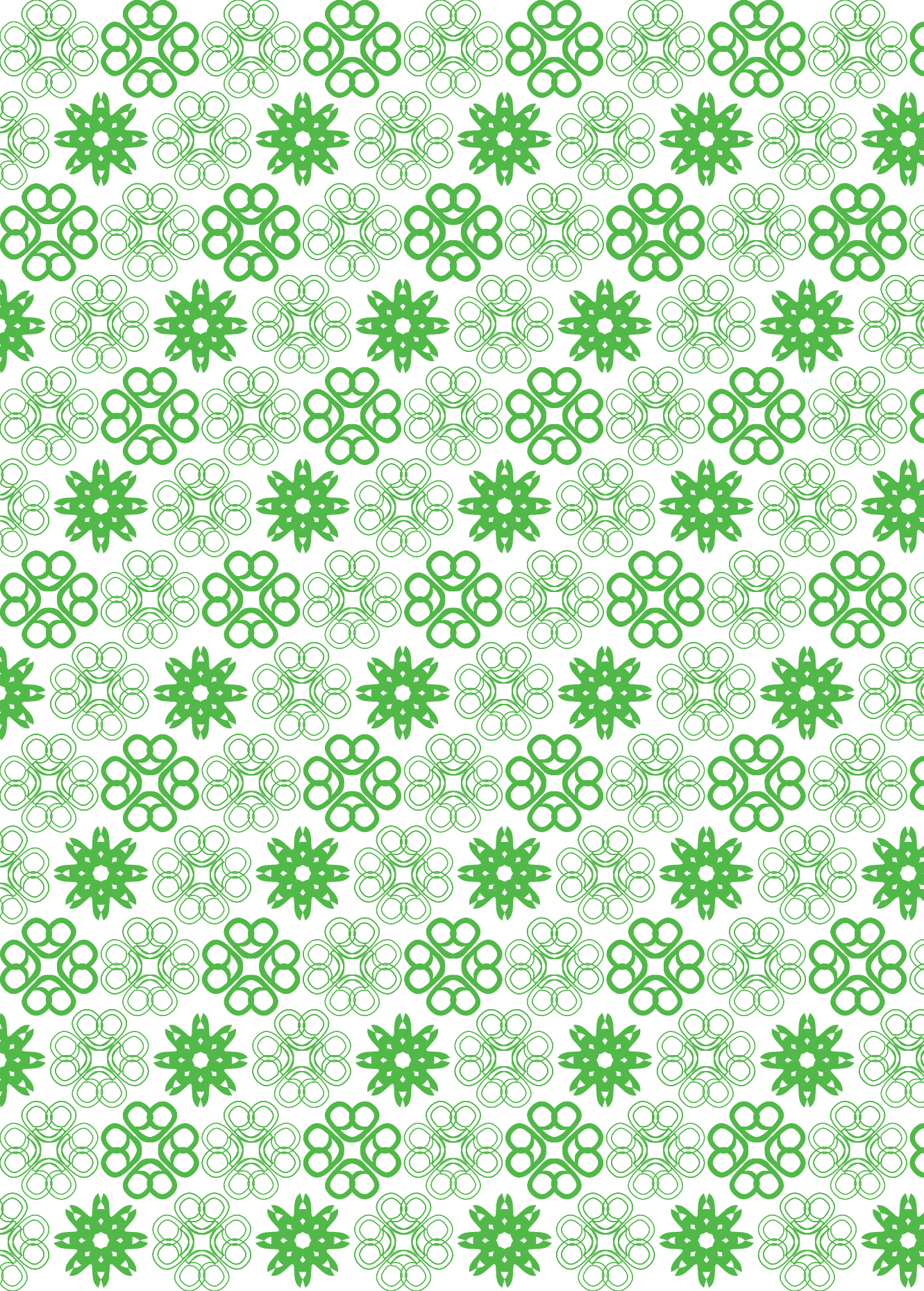
As has become clear from this discussion, the question about the main determinants (Question 2) is hard to answer straightforwardly. Being head of the household and the presence of other women in the household seem to be two factors that should definitely be included in models explaining women's employment, as these are household configurations factors that shape the balance between care needs and supply, as well as economic needs and supply in almost all contexts. More generally speaking, patriliny does not seem to be very important in shaping women's employment. Household roles and needs are important and influence women's employment considerably. This effect extends beyond the household configuration variables normally used in micro-level studies: having a partner and the presence of children (e.g. Al-Qudsi, 1998; Amin & Al-Bassusi, 2004; Aromolaran, 2004; Assaad & Arntz, 2005; Başlevent & Onaran, 2004; Calvès & Schoumaker, 2004; Donahoe, 1999; Glick & Sahn, 1997; 2005; Gündüz-Hoşgör & Smits, 2008; Khattab, 2002; Miles, 2002; Pettit & Hook, 2005). All together, the model including the new variables also showed a substantially better fit (DIC) than the similar model without these variables (Model 4 in Table 6.2).

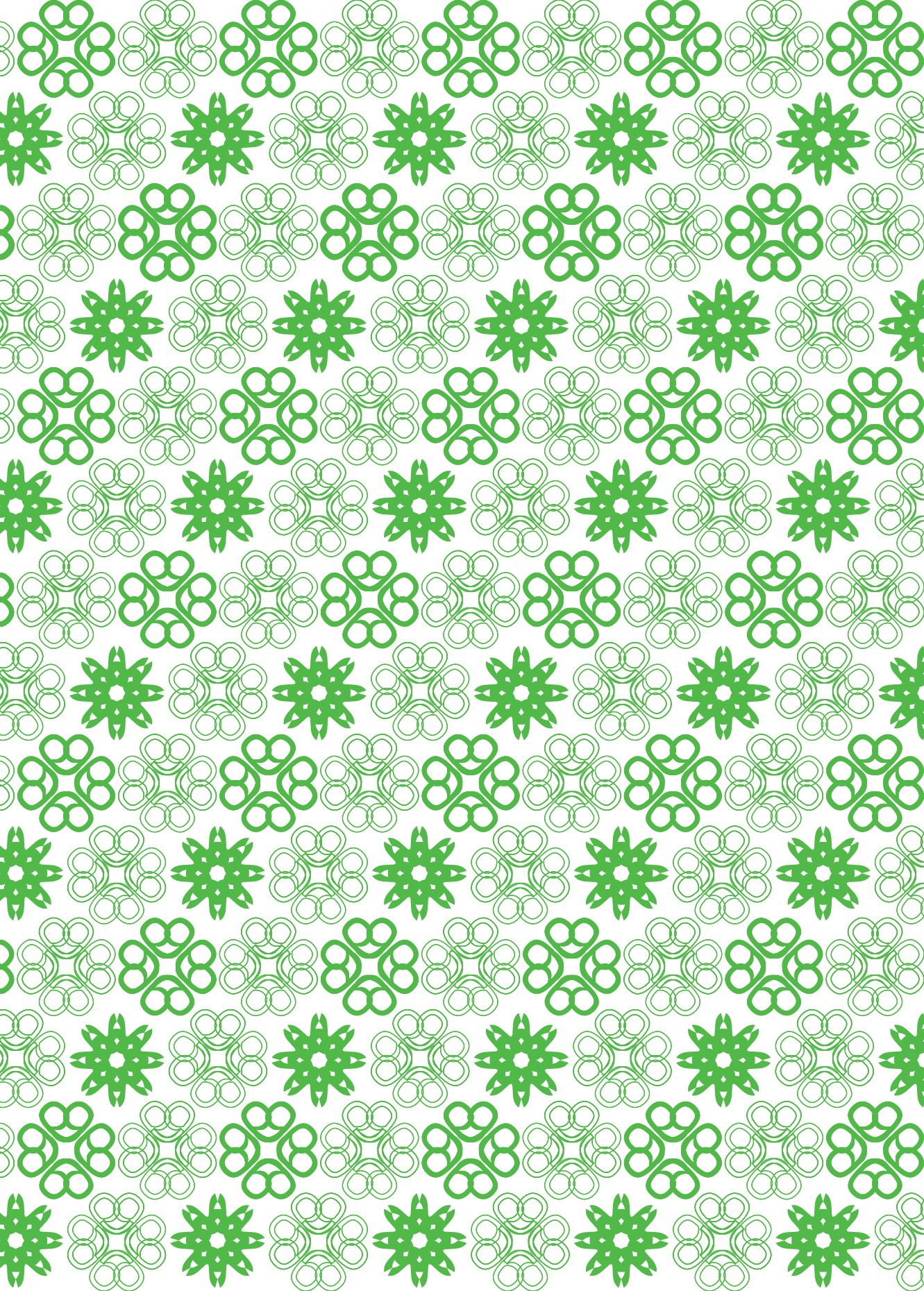
8.6.2 CROSSOVER: FROM MICRO-LEVEL STATISTICS BACK TO THE CONCEPT OF PATRIARCHY

For these two (children and marriage) and at least five other variables (presence of adult women, the presence of elderly people, the presence of adult men, being head of household, and 'not-biologically related' children) the impact on women's employment clearly differs by context. To understand this, I propose adjusting the two starting-point dimensions derived from the literature (household roles & need; sex hierarchy & lineage [see Kandiyoti's, 1988]). The results here suggest that three sub-dimensions related to the household roles dimension of patriarchy are rather elucidating in explaining the different influences. Firstly, in line with Jenson (1997) we should determine 'Who cares?': Who are expected to provide care to other household members? Is it only the women or also the men? It seems that this task is still almost exclusively feminine. Secondly, it is important to understand who is expected to provide the household with an income. Are men the only ones with income-providing roles or is it also accepted that women work even if there is no grave economic necessity? In all cases, primarily women might be responsible for care, and men for an income, but to what extent these roles are fluid turns out to be relevant. Income-providing roles should not be seen as the opposite of care roles, they are not part of the same continuum (see the negation guideline in Goertz & Mazur [2008: 25–7]). If earning an income becomes less masculine, it is not automatically true that providing care becomes more masculine (see Habib, Nuwayhid & Yeretzian, 2006: 326). Women have more diverse roles across regions, but the men's role is far more restricted to the economic private sphere (see also Box 8.3). Thirdly, it should be taken into account what is considered to be part of the care chores: managing the household generally and constantly, or taking care of the children? Does this include the elderly as well, and which children are considered to be most in need of care?

The general theoretical framework of this thesis brought together two separate literatures on women's economic position in Muslim countries: the conceptual and more qualitative literature on patriarchy as a societal gender regime (e.g. Edgar, 2006; Kandiyoti, 1988; Moghadam, 1996; 1998; Westwood, 1997), and the quantitative literature explaining women's employment at the micro level (e.g. Al-Qudsi, 1998; Amin & Al-Bassusi, 2004; Aromolaran,

2004; Assaad & Arntz, 2005; Başlevent & Onaran, 2004; Calvès & Schoumaker, 2004; Donahoe, 1999; Glick & Sahn, 1997; 2005; Gündüz-Hoşgör & Smits, 2008; Khattab, 2002; Miles, 2002; Pettit & Hook, 2005). The concept derived from the first literature was translated to the micro-level and the newly derived hypotheses on household configurations were studied, and turned out to be rather relevant in countries where a significant proportion of the households is extended. Secondly, the results from these analyses were used to reflect upon the concept of patriarchy, building and refining it. To come full circle, these understandings could be used to inform scholars in constructing indices and measurements of the different dimensions of patriarchy. Such data are crucial to test further which contextual circumstances shape the effects of household configurations on women's employment, and, for instance, how policies (public patriarchy) might reinforce or contest economic inequalities in the household (private patriarchy).





Chapter 9

Theme 3: Refuting simplicity

Islam as a multivocal influence in Indonesia and Nigeria

9.1 ISLAM: OBVIOUS BUT UNSATISFACTORY

The obvious answer to the question 'Why do Muslim countries have low employment levels for women?' is suggested by the question itself: because they are Muslim. Islamic religion is supposed to lead to low employment levels. As quoted in the introductory chapter, Clark, Ramsbey & Adler (1991: 59–60), for instance, state that: "Islam, with its strong emphasis on separate spheres for men and women [has] blocked women from acknowledged entry into the paid work force." Even if we ignore the descriptives given in Chapter 5 and accept the general empirical fact that Muslim countries have (on average) lower female employment rates than other countries, conclusions such as the one quoted above have not been sufficiently proven, and they lack a thorough theoretical argument.

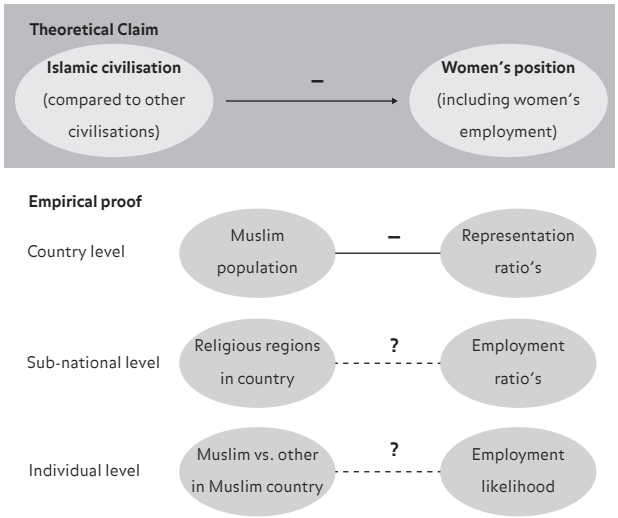
These often-heard conclusions pinpoint Islam as the cause of women's low employment level or their 'backward' position in general. At the core of the arguments behind these conclusions are general statements about Islam's supposedly inherent conservatism or misogyny. These supposed aspects of the religion in themselves are supposed to be sufficient to prevent women from entering the labour market. I cannot but conclude that the causal path in this reasoning is heavily underspecified. Consequently, the empirical tests are limited to a crude focus on religious denomination and aggregate population measures to explain low employment.

In this chapter, I apply the theoretical framework discussed in the previous chapters to this matter in the hope of gaining a better understanding of how religion might influence women's employment and providing a (better) answer to the questions whether and how Islam impacts on women's employment in Muslim countries. In Section 9.2, I first reflect on existing knowledge to show the major gaps. Subsequently, I explain how my more holistic framework enables me to distinguish between different types of Islam and different manifestations of its influence. I argue that Islam can have multiple (reinforcing or contradictory) effects at the same time, for instance through societal norms, through policies and politics, and through personal beliefs. The effects of these different manifestations depend on the particular strand of Islam that is transmitted. In the third section of this chapter I will examine the cases of Indonesia and Nigeria, which will be studied to ascertain how different types of Islam influence women's employment. The high employment levels and religiously fragmented population in both countries makes that studying these cases is in favour of the simplistic 'Muslim population' thesis described above. Section 9.4 will provide some information about the (additional) data that were used and the applied methods. Descriptive and causal analyses of the two countries, about 70 districts, and about 60,000 women are discussed in the fifth section. Afterwards, I shall connect the results on Indonesia and Nigeria with other countries for which some data on religious denomination are available in the DDW (Section 9.6). These analyses will be used to assess the generalisability of the results. A discussion of the general conclusions, limitations and implications will bring this chapter to a close.

9.2 LINKING ISLAM TO WOMEN'S EMPLOYMENT

Before focusing on the framework that conceptualises *how* Islam influences women's employment and then deriving specific hypothesis from that framework, I will firstly discuss the two dominant arguments in the literature on Islam and women's employment in Muslim countries.

Figure 9.1 The state of the art of the 'Civilisationist approach'



9.2.1 TO INFLUENCE OR NOT TO INFLUENCE?

In discussing issues like gender equality, many scholars tend to think in terms of civilisations, particularly contrasting the 'Western' and the 'Islamic' civilisations (e.g. Clark, Ramsbey & Adler, 1991; Fish, 2002; Inglehart & Norris, 2003a, 2003b; Lincove, 2008; Norris & Inglehart, 2004; Yuchtman-Yaar & Alkalay, 2007). In their argument it is both the absolute and the relative backwardness in terms of gender equality that restricts women in 'Islamic civilisation' from entering the labour market. In *absolute* terms, Islam is assigned certain qualities: a propagation of separate spheres for women's and men's lives, confining women to the household; strict (re)productive roles wherein women are seen as carers and the men as breadwinners (see the previous chapter); and an emphasis on the family as the primary unit in society (e.g. Clark, Ramsbey & Adler, 1991; Inglehart & Baker, 2000; Norris & Inglehart, 2004; Yuchtman-Yaar & Alkalay, 2007). *Relatively* speaking, the characteristics mentioned above are not said to be unique to Islam, but it is argued that they are more pronounced in Islam than in any other religion (see Droeber, 2003). This strong difference between homogeneously presented cultural blocks is presented as the reason why fewer women are employed in Muslim countries than in other countries (particularly Western ones). There are two major problems with this argument, one theoretical, the other empirical (see Figure 9.1).

Theoretically, this can hardly be called a convincing argument for at least two reasons. First of all, it ignores that 'Islam' harbours many different strands, ideologies, and practices. Islam in Mali is not the same as Islam in Pakistan or in Indonesia. The same can be said for the Christian culture in the West. The 'civilisationist' concept of a religious culture is thus very crude and neither considers how different culturalisations of Islam affect the position of women, nor how multiple interpretations of Islam can simultaneously influence women's employment. Secondly, the argument only discusses the content of the cultural influence, but hardly reveals *how* it influences women's decisions; it seems that an invisible hand directs women to refrain from seeking employment. This argument is mainly applied to blocks of countries (civilisations), but it is not explained why the reasoning is restricted to the country level. In fact, I would say, the predicted differences can expected to be found at any level. In other words: women in Muslim countries have lower employment levels than in non-Muslim countries; within these countries, in Muslim villages or provinces women can be expected to work less often than in non-Muslim villages or provinces; and in these villages or provinces, Muslim women can be expected to have lower employment likelihoods than non-Muslim women.

Empirically, the civilisation argument would seem to be widely supported in existing studies, but this support is rather thin because it is limited in two ways. Firstly, the most prominent tests are based on comparisons of country-level averages, asking: are there fewer women in parliament in Muslim countries than Western countries; is women's employment on average lower in the Muslim civilisation than the West; are the views of people in Muslim countries less favourable of gender equality than in Western countries (e.g. Clark, Ramsbey & Adler, 1991; Inglehart & Norris, 2003b; Norris & Inglehart, 2004; Ross, 2008; Yuchtman-Yaar & Alkalay, 2007)? Variation within this Muslim civilisation is not taken into account and people with different religions within Muslim countries are hardly compared to each other. Without such additional analyses it is hard to judge how much the civilisation explanation contributes to understanding women's position. Secondly, defining civilisations in terms of Muslim population or historical religious dominance (see Chapter 4, Section 3) leads to a geographical area being designated as the Muslim civilisation (see Figure 4.1). Many other factors cluster by geographical area: from ecological circumstances such as climate, oil, and desert, to social histories such as colonisation, regional conflicts, and economic dependency. Therefore, very general cross-comparative studies can never control for all alternative explanations. Testing the claims about differences between Islam and other religions at other levels might provide additional support or refutation for the civilisationist argument, because other factors can be held constant.

The criticism formulated here may suggest that I expect that the role of Islam is highly overstated or does in fact not exist. Indeed, several studies suggest more or other explanations for the differences found, such as economic development, colonial history, conflicts in general and the Arab-Israeli conflict in particular, oil, urbanisation, educational attainment, and socio-

Box 9.1

- Women who adhere to a more conservative Islamic tradition or women who live in areas in which a more conservative Islamic tradition is dominant have an employment likelihood that is lower than that of women who do not;
- For each religion the same argument can be formulated: it is the degree of conservatism that influences women's employment, not the religious denomination;
- Women's employment in the Islamic denomination is not consistently lower than that in the other religions' denominations, in other words, some Islamic groups have higher employment rates than for instance some Christian groups and others have lower employment rates than Christian groups;
- Islam influences women's employment likelihood through different channels at different levels (e.g. individual, community) and these different channels and level can lead to Islam having contradictory effects with respect to the likelihood that a woman is employed.

128 There is some literature on Islam and women's employment in the West as well. See, for instance, Read (2003).

economic class (e.g. Droeber, 2003; Khattab, 2002; Moghadam, 2003; Spierings, 2007; see also Kaya, 2010). While I do indeed argue that the negative influence of 'Islam' is probably overstated, I also believe that religion can be a major driving force of people's behaviour. It would be simplistic to dismiss Islam as an explanation for women's position. The question whether Islam has an influence can however only provide answers of little scientific value. The more relevant question is the following:

How and what influence do various types of Islam have on the position of women, and more particularly women's employment?

9.2.2 HOW ISLAM MANIFESTS ITSELF

As discussed in previous chapters, different value patterns and the different forms these take have to be distinguished in order to understand how values influence women's employment. In this study, religion is considered as a source of values, but Islamic values can differ by region, time, and source. Moreover, these different values can manifest themselves through various routes. One might say that to understand the influence of religion, we need to think in terms of messages and messengers, whereby the plurality of messengers refers to the multitude of ways that Islam is expected to influence women's employment (see also Badran, 2001; Spierings, 2007).

The view that a religion harbours a multitude of strands (or messages, or sets of values) is not new. The relatively rich literature on the influence of Protestantism on (wo)men's employment in Western countries, in particularly for the U.S., the importance of the differences between Protestant denominations and their various degrees of conservativeness is established (Ammons & Edgell, 2007; Chadwick & Garrett, 1995; Civettini & Glass, 2008; Feldmann, 2007; Glass & Nath, 2006; Sherkat, 2000).[128] For my goals here, it is thus important to distinguish different types of Islam with respect to their views on women's position in society. For instance, Wahhabist Islam starts from values such as hierarchy, modesty, and complementarity, whereas the Hannafi legal school takes a more liberal view on women's rights (see Geaves, 2006; Ruthven, 1997). When we speak of the influence of Islam, we should not treat Islam as one singular entity, and it should be made clear which specific Islamic 'message' we refer to. Contrasting Islam as a whole to another – generalised – religion is misleading and conceals or veils important differences in values within each religion.

Differentiating the messages, however, is only the first step. In order to exert influence in the first place, a worldview (based in an Islamic school of thought) needs a medium or mechanism (besides the indirect effect on women's employment through shaping needs and opportunities). In Chapter 2, I have distinguished three other ways in which values can have a direct effect: (1) internalised values, (2) the value-based norms imposed by society or others in the household, and (3) the institutionalisation of values in policies and politics. Because there are multiple Islams and multiple ways for values to have an effect, it is possible that different combinations of these value effects are at work at a single place and time, each with a unique effect. The challenge is now to understand which specific manifestations there are and how these can influence women's employment. This general discussion about the differences in messages and messengers above is translated into four explicit general expectations, as given in Box 9.1.

WOMEN AND THEIR HOUSEHOLDS

If we start at the lowest level that I distinguish in this thesis (the women themselves) only internalisation seems relevant. At the core of the mechanism are the values a woman believes in. If a woman strongly favours traditional family roles and believes in a sexual hierarchy, she prefers reproductive labour in the household above being employed outside the home. These stronger traditional values can be inspired by (more conservative strands of) religion. In that sense, I would thus expect that women adhering to more conservative denominations of any religion have lower employment likelihoods compared to women adhering to more progressive religious denominations (on Protestant women, see Feldman, 2007; Sherkat, 2000; on Arab-American women, Read, 2002). More traditional women will not only be less motivated to enter the labour market, but characteristics that can negatively influence their employment likelihood

Box 9.2

9.1 If a woman is Muslim, the probability a woman is gainfully non-agriculturally employed is smaller than if she is not.

Box 9.3

9.2 If a woman lives in an area predominantly inhabited by Muslim people, the probability that that woman is gainfully non-agriculturally employed is smaller than if she lives in an area predominantly inhabited by people with another religious denomination.

9.3 If a woman lives in an area predominantly inhabited by people adhering to a more conservative type of Islam, the probability that that woman is gainfully non-agriculturally employed is smaller than if she lives in an area predominantly inhabited by people adhering to a less conservative type of Islam.

129 While I stress the importance of recognising the individual and the household level as theoretically distinct, in this case it should be noted that religious intermarriage seems rather rare and religious views are often a selection criterion for marriage. In other words, I assume that the differences in values systems within a household – particularly a marriage – are relatively small.

130 Based on the theoretical discussion, more and more refined hypotheses could have been formulated. However, despite a unique collection of data, the data used in this thesis do not allow me to test these. Therefore I have chosen to formulate the hypotheses here in a way that both reflects the core theoretical issues and can be tested. In those tests, the intervening effects or causal mechanisms are of course considered.

also depend on these views. For instance, women with more conservative ideas can be expected to be more likely to be married, have more children and to have lower educational participation rates (see Glass & Nath, 2006). All these factors resonate with a belief system in which a woman is – in the strictest sense – subordinate to men, secluded in the home, and responsible mainly for reproduction and raising children.

Theoretically and conceptually distinct, but empirically hard to distinguish from the former mechanism is the influence of the household context. Since I expect that the opinion of other household members (especially partner and parents) matters in employment decisions, their value system is highly relevant as well. Here the same reasoning holds and it can be expected that when a household holds more conservative religious views, this will have a negative effect on women's employment likelihood.[129]

Both of the mechanisms discussed above focus on the micro level and the differences between women within a country or another geographical area. If Islam were more conservative than other religions, Muslim women would have to have lower employment likelihoods than women with other religious beliefs. Moreover, this should have an effect through the level of traditionalism of women and their household, as religion is a personal practice. If it is not Islam as a whole that presents a more traditional worldview in these countries, then the level of household traditionalism can still be important, but it is does not mediate the effect of Islam. The discussion is summarised in the hypothesis given in Box 9.2.[130]

RELIGIOUS NORMS

The importance of the world beyond the household is reflected by the possible influence of religious worldviews through cultural norms and political institutions. In previous chapters, the role of norms has already been discussed. Substantially, norms refer to values similar to those that are internalised or held by household members: women's roles in the household, the genderedness of public space, sexual hierarchies, and modesty. Earlier in this thesis, the origins of these norms have been discussed in terms of modernisation (Chapter 3), political history, and religion (both in Chapter 8). This chapter shall focus on the dominant religion in the area women live in as a source of norms. Religion is thus seen as an important part of culture, but not as synonymous with that concept, which for Islam is often the case. Religious values have become part of the dominant ideas about how people should behave or not, and consequently people tend to adjust their behaviour to them. If these norms originate in an Islamic history or culture, it is not directly relevant whether the individual woman in a Muslim country is Muslim, Hindu, Christian or atheist. The dominant version of Islam prescribes what society should look like and how people should behave. This influence can take either an injunctive (the idea that certain behaviour is not accepted leads to not behaving that way) or prescriptive (observed behaviour is copied) form (see e.g. Smith & Louis, 2009). Injunctive norms also include stigmatisation, which might be responsible for the reluctance of women willing to work to enter the labour market because of perceived informal repercussions. If Islam incorporates values that are less in favour of women's employment and Islam is the dominant religion in a region, it can be expected that Islam has a negative influence on women's employment. However, if we expect that the difference between Islam and other religions does not exist in these general terms (because the strands of different religions overlap), this effect is not nearly as clear cut, as several areas with more progressive Muslim views would have better employment rates than areas dominated by strands of other religions. Regarding norms and considering the existence of different Islamic messages, it can also be expected that women's employment will be lower if the dominant type of Islam in a region is more conservative than if the dominant type of Islam is less conservative or is progressive.

The dominance of a religion is often linked to the modal religion: the religion that most people in the area adhere to. Thus, based on the above, living in a province in which mostly Muslims live could for instance be expected to lead to more conservative norms and thus to lower employment levels for women. In sum, two hypotheses can now be formulated – as given in Box 9.3 – of which I expect the 'Islam diversity thesis', Hypothesis 9.3, to hold, and not Hypothesis 9.2, which is based in the civilisationist logic.

Box 9.4

9.4 If a woman lives in an area in which *Shari'a* is part of the body of law, the probability that that woman is gainfully non-agriculturally employed is smaller than if she lives in an area in which *Shari'a* is not part of the body of law.

9.5 To the extent the presence of Islamic political actors in an area increases, the probability a woman is gainfully non-agriculturally employed in that area decreases.

131 In Indonesia, provinces have a relatively high degree of regional autonomy, especially since the implementation of a new law in 2001. Moreover, five regions have a special status.

ISLAMIC POLICIES AND POLITICAL ACTORS

The last group of religious influences focusses on the institutionalisation of religion. Sets of values can become influential through institutionalisation in policy and state structures (see for instance Bahramitash, 2002; Doumato, 2003; Murphy, 2003; Spierings, Smits & Verloo, 2009; Walby, 2009). The policies can have direct material effects as well as effects, comparable to the injunctive effect of norms. Firstly, the material effects come from the codification of conservative views in formal rules. Once these worldviews are translated to policies, women can ultimately be forbidden to look for a job. Less extreme but still restrictive measures are found in laws that forbid women to travel without a mahram, to take jobs requiring hard physical labour, or to have property rights. In each of these cases, some jobs, or prerequisites for certain jobs (travelling from home to work), are simply forbidden to women. Because in most conservative strands of Islam these kinds of measures are propagated as originating from *Shari'a*, it can be expected that incorporating *Shari'a* into the law system of a country disadvantages women's employment possibilities.

More generally, it can be expected that the presence of political Islam has a negative effect on women's employment. Less traditional forms of Islam often limit themselves mostly to the private and religious sphere, while more conservative strands have a more holistic view which encompasses the regulation of private and public life. Because of this association of a more conservative set of Islamic values with political organisation, it is to be expected that in areas in which Islamic political actors are stronger women's employment is lower. These political actors might implement policies restricting women and their presence might press other political actors to do the same in order not to lose the support of their constituency.

The presence of political Islamic actors as well as the incorporation of Islam in the body of law of a country cannot only be expected to have a direct negative effect on women's employment, but also indirect effects. As was the case for religious norms, the institutionalisation can also affect for instance the school attendance of women and the number of children they have, which in turn influences women's employment likelihood. In sum, this focus on the institutionalisation of Islam in politics can be captured in the two hypotheses of Box 9.4.

9.3 TWO CASES: INDONESIA AND NIGERIA

The hypotheses discussed above will be tested for two large and diverse Muslim countries: Indonesia and Nigeria. Before arguing from a theoretical and methodological perspective why I have selected these two countries, I will first provide some descriptive background.

9.3.1 INDONESIA

Of the Muslim population worldwide, 12% live in Indonesia (195 million of about 1.6 billion Muslims in the whole world), making it the largest Muslim country. However, about 45 million Indonesians are not Muslim. Considerable numbers of Christians and Hindus live in Indonesia, as well as some Buddhists, Animists and people who adhere to other religions (Emmerson, 2001; CIA, 2009). Islam in Indonesia is diverse and influenced by local traditions that have been incorporated into religious practice (Bahramitash, 2002; Emmerson, 2001). In Indonesia, one can distinguish between the more 'Modernist' form of Islam, which is based on orthodox theology and is in fact the more conservative of the two, and a 'Traditional' Islam in which local religious leaders interpret religious sources themselves. The latter, mostly found on Java (Patung, 2006c; UNDP Indonesia, 2009), is the least conservative, notwithstanding its misleading label.

Islam is not only important in terms of individual religious belief, but it is also a significant societal force. Indonesian family law is partly based on *Adat*, a set of principles in line with traditional Islamic law (Bahramitash, 2002; Lindsey, 1999), and since 2003 some regions have promulgated laws based on the *Shari'a* (Patung, 2006a, Patung, 2006b). In the political sphere, Muslim and Islamic oppositional movements have existed since the Sukarno regime. At the end of the last century the National Awakening Party (PKB), a party that supports a role for Islam in government, became part of the government coalition (Emmerson, 2001; Bahramitash, 2002).

Despite violent conflicts along religious lines in Aceh and on the Moluccas, religious differences do not seem to threaten the unity of Indonesia.[131] This is partly due to crosscutting

132 PDP (People's Democratic Party); AD (Alliance for Democracy)/since 2006 AC (Action Congress); ANPP (All Nigerian People's Party), former APP (All People's Party).

cleavages of ethnicity, religion, residence and wealth (Emmerson, 2001: 391). Furthermore, Muslims and people with other religious beliefs do not live completely segregated from each other. Non-Muslims live in Muslim-dominated areas (provinces) and Muslims live in non-Muslim-dominated areas.

Economically speaking, compared to other Muslim countries, Indonesia went through a process of industrialisation quite early on (Moghadam, 2003). This early industrialisation is cited as one of the reasons why the labour market participation of Indonesian women is relatively high compared to that of many other Muslim countries. About a quarter to a third of Indonesian women are reported as being employed in non-agricultural paid labour (Chapter 5; see also Spierings, Smits & Verloo, 2009).

9.3.2 NIGERIA

With more than 130 million inhabitants, Nigeria is the largest country on the African continent, and it is one of the African countries with a majority of Muslim inhabitants: about half of the population is Muslim, 40 to 50% are Christian and most of the remaining people adhere to indigenous beliefs. The Muslim population is concentrated in the north, and the Christian in the south. Despite this, many Christians live in the northern states and vice versa.

Ethnically speaking, Nigeria is extremely heterogeneous. However, ethnicity and religion broadly coincide, and most conflicts are fought along ethnoreligious cleavages. Thousands of people have died in these conflicts in the past two decades (globalsecurity, 2009; Olukoshi, 2001). Yet this does not mean that Nigeria consists of two monolithic religious blocs. Many different Islamic sects exist, Sunni and Shiite Islam are practiced, and only part of the Muslim territories is part of the caliphate founded in the northwest of Nigeria in the early nineteenth century: the Sokoto Caliphate (e.g. Hunwick, 1992). Moreover, Christianity encompasses Roman Catholicism, Anglican churches, and many smaller Protestant groups or sects (globalsecurity, 2009).

Politically, the ethnoreligious conflicts threaten the unity of the Nigerian federal state. President Obasanjo's first government (1999–2003) has sought to compromise with the Islamic opposition and his policies have reduced some tensions (Isaacs, 2003). As of 1999, Nigeria's 37 states are allowed to incorporate *Shari'a* law into the criminal law code (instead of only in civil law). Twelve states in northern Nigeria have made use of this opportunity. However, the *Shari'a* law does not apply to non-Muslims in these states (globalsecurity, 2009; Isaacs, 2003; Olukoshi, 2001). Of the three main political parties in Nigeria,[132] only the All (Nigerian) People's Party is associated with Islam (Cahoon, 2009). In the 2003 presidential elections, this party's candidate won about one third of the votes. That same year, it lost three governorships, leaving the ANPP with governors in six out of 37 states.

Nigeria's economy is largely dependent on oil-industry exports. It has been suggested that this has had a positive effect on women's employment rates. Different studies point at a third to half of the women being active in a non-agricultural job, which is much higher than the employment rates in other Sub-Saharan African countries (see Chapter 5). Even taking into account oil exports and the level of economic development, Nigeria's women's employment rate is somewhat higher than in other comparable Muslim countries (Spierings, Smits & Verloo, 2009).

9.3.3 CASE SELECTION STRATEGY

Indonesia and Nigeria are interesting countries to study in terms of the effects of Islam on women's employment for several reasons, some more practical, some more theoretical.

Firstly, while the average Muslim country does not exist, studying Indonesia and Nigeria does make it possible to draw more general conclusions about the larger population. Both countries are roughly middle-income countries, oil plays some role in export, they have a colonial political history, and a certain degree of religious freedom. These are all characteristics they share with other (African and Central Asia) Muslim countries. In those terms, the results for these countries might be used to draw conclusions about other Muslim countries in these regions. The fact that Indonesia and Nigeria have relatively high levels of women's employment compared to other Muslim countries is an advantage to this study. A relatively high score on

Table 9.1 Overview new variables

Factor (Hypo)	Indonesia Variable	Values[1]	Average (s.e.)[2]	Missings[3]	Nigeria Variable	Values[1]	Average (s.e.)[2]	Missings[3]
Individual level	**(n=32,265)**				**(n=27,592)**			
religious denomination	self-reported religion	Muslim	0.801	161	Self-reported religion	Muslim	0.498	152
		Protestant	0.109			Protestant	0.382	
		Catholic	0.042			Catholic	0.100	
		Hindu	0.040			Other	0.020	
		Other	0.008			-		
District level	**(n=33)**				**(n=37)**			
predominant religion	Religion of majority of women	Muslim	0.82	0	Religion of majority of women	Muslim	0.43	0
		Protestant	0.09			Protestant	0.49	
		Catholic	0.03			Catholic	0.08	
		Hindu	0.03			-		
conservatism of predominant Islam[4]	Traditionalist Islam (vs Modernist)	(1) Yes 0 = no	0.21	0	Sokoto Islam (vs non-Sokoto)	(1) Yes 0 = no	0.27	0
Implementation of *Shari'a* law	*Shari'a* is part of law is (sub) district	(1) Yes	0.30	0	*Shari'a* is part of law in district	(1) Yes 0 = no	0.32	0
Power of Islamic political actors	Share of district's seat in parliament for Islamic party	min: 0 max: 54	23.7 (14.2)	0	Presence of a governor from an Islamic party in district	(1) Yes 0 = no	0.16	0
	Share of district's seat in parliament for Muslim party	min: 0 max: 39	13.4 (10.9)	0	-			
Control variable	Gender Development Index value	min: 47.7 max: 66.7	55.7 (4.07)	0	-			

Notes: The figures in this table are based on unweighted samples; the indicated 'n' is the number of cases after deleting the reported missings; (1) the presented minimums and maximums are the extremes as they are present in the data, not the conceptual/possible extremes; (2) in the case of nominal/categorical variables no standard deviation is reported and the average represents the proportion of cases falling in the designated category; (3) These are the missings starting from the 'cleaned' data sets as presented in Chapter 4 and used in Chapter 6 (and 7); (4) this is a dummy making a distinction for all district that are predominant Muslim on the district variable indicating the predominant religion in that district. Inclusion of the new variable in a model in which already the religion dummies at the district level are included (Muslim being the reference group) expands the classification of the old variable to include a new group and the reference group than shift to being the Muslim districts not included in the newly included dummy for either Traditionalist (Indonesia) or Sokoto (Nigeria) Islam.

133 It might be argued that their arguments only apply to almost exclusive Islamic contexts, but the practice in civilisationist studies suggest otherwise. For instance, Indonesia and Nigeria are generally included in the Islamic civilisation dummies (see for instance the map in Inglehart & Norris [2003b: 64]).

134 Other countries in the database also fulfil the criterion of at least 25 higher-level units: Algeria (47), Egypt (26); and with 24 districts Tunisia comes close. However, for none of these countries the religious denomination is present in the dataset, and the religious heterogeneity is very restricted in these countries.

the dependent variable suggests relatively high or relatively low levels of certain explanatory factors (see Gerring's [2007] discussion of 'extreme cases'). That both countries have substantial Christian populations might indicate that religion is this explanatory factor. If so, we would, especially within these two countries, expect that Christian (or non-Muslim) districts have higher employment levels and the Muslim areas lower ones; or Christian (or non-Muslim) women to be more active on the labour market, and Muslim women less. If this is not the case, the tests in this chapter provide a strong refutation of the theoretical argument presented by the civilisationists.[133]

Secondly, the diversity in these countries in terms of religion enables me to make comparisons, and establish whether there is any correlation or possibly causal relation. In terms of personal religious denomination, the dominant religion in districts, the type of Islam in districts, and the political institutionalisation of Islam there is considerable variation in Indonesia and Nigeria. Thirdly, but highly related to the previous point, both countries have more than 30 districts, which creates enough statistical leverage to conduct quantitative testing at the district level (Jones & Duncan, 1998).[134] Fourthly, as the women's religious denomination is known for these countries, it can be aggregated to the district level. Lastly, politically, the significance of Indonesia and Nigeria is relatively large, since these are two of the largest Muslim countries in the world, with about 195 million female inhabitants of which roughly 140 million are Muslim, and the countries also play important political roles in their regions.

Given that many countries lack a comparative database that includes information about different manifestations of Islam at the individual and sub-national levels, the sub-national and micro-level differences in Indonesia and Nigeria can for now be useful in understanding Islam's influence on women's employment.

9.4 DATA & METHOD

The datasets and operationalisations used in this chapter are similar to those discussed in Chapter 4, and the variables added as controls are those used in the models presented in Chapter 6. The fully controlled models in Table 9.3 and Table 9.5 are based on the final model presented in that same chapter. One major difference is, however, that the country-level is now excluded, because I only focus on two countries. Furthermore, I have added one additional control variable for Indonesia, because the Indonesian UNDP report provides a Gender Development Index value at the district level (Mishra et.al., 2004).[135]

In addition to the regular data, religion variables have been included to measure individual denomination, the districts' religious dominance, and the political institutionalisation of Islam in the districts. More information on these variables is given in Table 9.1. Appendix 9.1 includes all district-level scores. At the individual level, I could distinguish between the women's religious denominations. For Indonesia, I categorise the women as Muslim, Protestant, Catholic, Hindu, or other. The last includes the small group of Buddhist women. For Nigeria, a distinction is made between Muslim, Protestant, Catholic, and other religions. The last includes the small group of 'Animist' women. At the individual level, I cannot make a distinction between different types of Islam, but the traditionalist values proxies are included to study the variation within religious groups.

At the district level, the dominance of a religion is measured by the percentage of women that adheres to a certain denomination. For Indonesia this led to the easy classification of all 33 districts (Islam, Protestantism, Catholicism, or Hinduism). In the case of Nigeria, classification was also not that difficult, though there was one district where no religion (Islam, Protestantism, Catholicism) had the majority, but the plurality of women was Protestant (48%) and a majority was Christian. This district (Kogi) was thus coded as predominantly Protestant. The focus on the predominant religion (with dummy variables) is in line with the civilisation approach (see Clark, Ramsbey & Adler; 1991; Donno & Russett, 2004; Fish, 2002; Inglehart & Norris, 2003b; Norris & Inglehart, 2002; Tzannatos & Kaur, 2003) and therefore the best way to test their reasoning, although it is here tested within countries.

To measure the difference between more and less conservative strands of Islam, the Muslim districts in Indonesia could easily be divided into two groups: the districts in which the

135 For the final models in this chapter (the models with all variables), Appendix 9.2 present the coefficient for the religion variables from models estimated with weighted IGLS procedures. Hardly any substantial differences have been found. Only the district-level variables for Indonesia become somewhat stronger statistically significant.

136 The provinces are divided in 5 to 38 'regions' (including 'cities') (Gwillim Law, 2011).

137 In a murder case, finding a person with a smoking gun at the crime scene of a murder is strong proof that that person is the murderer. However, the absence of a gun does not proof that the murdered is not present. The proof is asymmetrical. Finding a gun is almost sufficient proof, but it is not a necessity.

more orthodox "Modernist" Islam is dominant, and the districts in which the less conservative "Traditionalist" Islam is dominant. The latter religion is mainly found in the Javanese provinces and the southern tip of Sumatra (Patung, 2006c; UNDP Indonesia, 2009). For Nigeria, such a clear-cut division was not available. However, an attempt can be made by following Nigeria's ethnoreligious cleavages, which divide the Muslim part of the country. Here, the Hausa/Fulani people have a distinct Islamic history as being dominant in the Sokoto Caliphate and the Sokoto Sultan is still, after colonisation and decolonisation, an important religious figure in Nigeria (IslamToday, 2011; Nationsencyclopedia, 2009; Globalsecurity, 2009; XTimeLine, 2011). The districts in which the majority of women reported either a Hausa or a Fulani ethnicity where coded as Sokoto Islam. These nine districts also formed the geographical core of the Sokoto Caliphate. While these Sokoto Islamic districts can thus be distinguished from the other Islamic districts in Nigeria, it is somewhat more difficult to predict whether women's employment will be higher or lower in the Sokoto districts than in the others. Callaway & Creevey (1994: 99) stress that Hausa/Fulani women did not have an active economic role in the wage sector, Hunwick (1992) believes them to be more traditional in religious matters because they have ties with Saudi Arabian Wahhabism, and Kritz & Makinwa-Adebusoye (1999) argue that the Hausa ethnoreligious background is expected to be less conducive to women's public participation than Yoruba and Ibo people. On the other hand, Kriger (1993) argues and shows that women in the Sokoto Caliphate were far more active in the textile industry than is often thought, but mainly in (paid) home production.

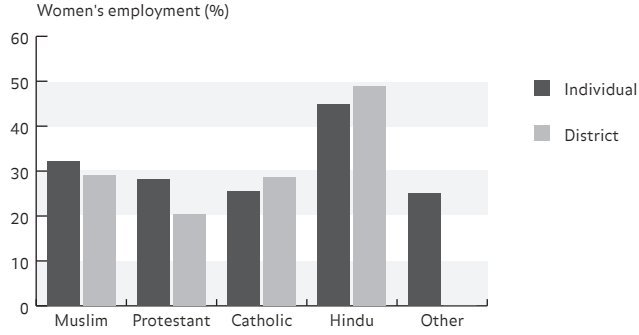
To assess the political institutionalisation of Islam, the focus is on *Shari'a* and political parties. In its legislation, Indonesia is rather centralist, but in 2003 Aceh was given special status and it adopted *Shari'a* under the special Autonomy Law. Since then, some other provinces and regions (subdivisions of provinces) have implemented *Shari'a* law as well. I coded a dummy for those districts (provinces) in which at least one region adopted *Shari'a*-based law (Patung, 2006a; 2006b).[136] For the twelve Nigerian districts (governorates) that have *Shari'a* law as part of their criminal law a dummy was created as well (Isaacs, 2003; globalsecurity, 2009; Olukoshi, 2001). The presence of Islamic political parties in Indonesia was measured by the strength in seat shares based on the province-level results of the 2004 parliamentary elections (Ananta, Nurvidya & Suryadinata, 2005). In calculating these shares, I distinguished between the Islamist parties and the other Muslim parties. The PPP, PKS, PBR and PBB are considered to be Islamist (Ananta, Nurvidya & Suryadinata, 2005; Indonesiamatters, 2006), and the PAN and PKB are considered Muslim parties. The latter officially hold Pancasila – the political state ideology formulated first by Sukarno – as their ideology (not Islam), but they are mainly supported by Muslims (Ananta, Nurvidya & Suryadinata, 2005: 21). An interval variable was created for both. In the case of Nigeria, I was able to include whether the governor of a district came from an Islamic party based on the results of the May 2007 elections. The ANPP (formerly APP) is considered to be an Islamic party (Cahoon, 2009). A dummy variable was created to indicate the presence of an ANPP governor.

While the two cases have relatively many districts and meet the criteria for a multilevel analysis, the number of districts in both countries does not allow the inclusion of many variables. Moreover, in Nigeria the dummies on the religious dominance of Islam, Sokoto Islam and *Shari'a* are nested in each other, which demands very careful interpretation in terms of what exactly is measured when several dummies are included. Partly because of this, I will present different models with more and fewer controls at the district level – another reason for this is to probe the causal mechanisms. Low significance might thus be due to including too many variables. However, when a relationship is consistently significant and shows similar coefficients it will prove to be robust. In other words, this approach to the models can provide strong proof in favour of the expectations, but not finding a robust relationship is not enough proof to immediately discard the expectation; it could be seen as a 'smoking-gun test' (Van Evera, 1997: 31–2).[137]

9.5 ISLAM AND EMPLOYMENT

I will first discuss the different descriptives and the regression analyses for Indonesia, then for Nigeria, and finally compare the results for the two countries.

Figure 9.2 Women's employment by religion in Indonesia



9.5.1 INDONESIA

Figure 9.2 shows that 32% of all Muslim women Indonesia are employed, which is a higher percentage than for the other religions, with the exception of the Hindu, women almost half of whom is employed. At the district level, all the women living in Muslim-dominated districts have an employment probability of almost 30%. This percentage is considerably lower (20%) in the Protestant districts (North Sulawesi, Papua, and West Papua or Papua Barat), while it is much higher in Bali, where Hindus are the dominant religious group. These descriptive statistics give rise to the question whether the differences are significant and whether the district-level differences might be compositional.

Table 9.2 and Table 9.3 present several regression models that provide insight into the (controlled) associations of religion with women's employment. The models in Table 9.2 show the results after only including the religion variables. From this it can be deduced that the raw differences at the individual level, after taking into account variation between districts, do not show a particularly low employment likelihood for Muslim women. On the contrary, after filtering out district-level differences, Muslim women have significantly higher employment likelihoods than Protestant, Catholic, and Other women (at least $p<0.01$). Only the difference with Hindu women is not significant. This pattern is found consistently in Model 2 through Model 5.

At the district level, it seems that living in a Hindu-dominated district is beneficial to women's employment (compared to Muslim-dominated regions as well as Protestant and Catholic districts), while no other clearly significant differences were found with Muslim-dominated districts. It seems that *Shari'a* law making is negatively associated with women's employment ($p<0.05$): the odds on employment are between 29% and 35% lower in districts where the *Shari'a* is implemented (Model 3 and Model 5). The influence of the presence of Islamic and Muslim political parties is less robust across these two models. In one model, the presence of Islamic parties has a positive effect (Model 5, $p<0.05$) and the presence of Muslim parties has no effect. In the other, Muslim parties have a positive effect (Model 3, $p<0.05$) but Islamic parties have not. In the first case a seat share increase of 10 percentage points leads to an increase in employment odds of 15% (Model 5), in the second one of 22% (Model 3). In Model 4 and Model 5, a distinction is made based on the type of Islam that is dominant in the district. Both show clearly that women's employment is significantly higher ($p<0.001$; 89% increase in odds) in the districts where 'Traditionalist' Islam is dominant than in to districts where the more conservative 'Modernist' Islam is dominant.

Overall, these results suggest that at the individual level, Islam has no negative influence on women's employment likelihood (on the contrary). At the societal level, the dominant religion does seem to have an influence, but the dividing line is not between Islam on the one hand and Christianity or the other religions on the other, as the Hindu-dominated province alone stands out positively. That Bali stands out might not be due to religious differences, but to the strong tourist economy on the island, a relatively feminine sector. Regarding the Muslim provinces, the difference between the more conservative and the less conservative version of Islam is larger than the difference between any of the religions. The districts in which a more conservative strand of Islam is dominant have an equal employment rate for women as the Protestant-dominated districts (after controlling for the religion of the people living there). The less conservative Islam dominated districts have higher employment levels than the Protestant ones. The religious institutionalisation variables show clear negative effects for the presence of *Shari'a*, but suggest positive effects of Muslim/Islamic political parties having political power. So far, these results have not been controlled for socio-economic and value variables.

The results for the models, including these controls, are found in Table 9.3 and help to understand the possible causal mechanisms related to religion. In Models 1 through 3 the religion variables' effects are controlled for different clusters of women's individual-level characteristics that where mentioned as possible intervening variables.

For the difference between women with different religions, if any effect is found at all, the lower employment likelihood of all other women compared to Muslim women only increases. Controlling for differences in education, having children, and having a partner widens the gap between Protestant and Catholic women on the one hand and Muslim women on the other

Table 9.2: Logistic regression results for models of gainful non-agricultural employed outside, women aged 15–49, neither in school nor disabled

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
Individual level				
Religious denomination				
Islam			Ref.	
Protestantism			-0.234 ***	0.063
Catholicism			-0.430 ***	0.099
Hinduism			-0.277	0.185
Other			-0.564 **	0.193
District level				
Dominant religion				
Islam	Ref.		Ref.	
Modernist (more conservative)				
Traditionalist (less conservative)				
Protestantism	-0.594 #	0.332	-0.586	0.305
Catholicism	-0.018	0.522	0.386	0.510
Hinduism	1.120 *	0.479	1.050	0.709
Shari'a				
Presence political Islam: Islamic parties				
Presence political Islam: Muslim parties				
Model statistics				
Intercept	-1.111 ***	0.086	-1.085 ***	0.108
District-level variance	0.291 ***	0.080	0.247 ***	0.074
Household-level variance	1.309 ***	0.093	1.305 ***	0.205
Deviance	37,721.17		37,668.95	

*p<0.05 ** p<0.01 *** p<0.001 and only for the district-level variables # p<0.10; N_i= 32,265; N_d=33; Models are based on MCMC estimation (5,000 iterations), starting from IGLS models weighted for in-country representativeness (see Chapter 4); Sources: see Chapter 4 and above.

Model 3		Model 4		Model 5	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Log odds**	**s.e.**
Ref.		Ref.		Ref.	
-0.233 ***	0.064	-0.233 ***	0.061	-0.216 ***	0.058
-0.436 ***	0.096	-0.433 ***	0.096	-0.407 ***	0.094
-0.277	0.161	-0.273	0.167	-0.254	0.162
-0.582 **	0.202	-0.557 **	0.188	-0.526 **	0.180
Ref.		-		-	
		Ref.		Ref.	
		0.627 ***	0.156	0.651 ***	0.140
-0.423	0.398	-0.333	0.239	-0.170	0.289
0.356	0.557	0.408	0.475	0.726	0.463
1.541 **	0.500	1.470 **	0.475	1.676 ***	0.385
-0.340 *	0.163			-0.427 *	0.210
0.002	0.007			0.014 *	0.007
0.020 *	0.009			0.008	0.006
-1.352 ***	0.280	-1.281 ***	0.080	-1.553 ***	0.235
0.213 **	0.065	0.168 **	0.052	0.140 **	0.046
1.270 ***	0.167	1.209 ***	0.104	0.893 ***	0.221
37,676.58		37,696.96		37,860.01	

Table 9.3 Logistic regression results for models of gainful non-agricultural employed outside, women aged 15–49, neither in school nor disabled

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
Individual level - Religion				
Religious denomination				
Islam	Ref.		Ref.	
Protestantism	-0.463 ***	0.059	-0.451 ***	0.062
Catholicism	-0.703 ***	0.092	-0.688 ***	0.097
Hinduism	-0.261	0.176	-0.264	0.156
Other	-0.569 **	0.187	-0.549 **	0.193
Individual level - controls				
Children (ref = no children)				
1or 2, older than 5	-0.048	0.041		
3 or 4, older than 5	-0.121	0.095		
5 or more, older than 5	-0.400	0.744		
1 or 2, at least 1 younger than 6	-0.607 ***	0.042		
3 or 4, at least 1 younger than 6	-0.538 ***	0.054		
5 or more, at least 1 younger than 6	-0.754 ***	0.143		
Partner present (ref = no partner)	-0.907 ***	0.061		
Presence male breadwinner (ref = no)				
Education (ref = less than primary completed)				
primary completed, secondary not			0.317 ***	0.039
secondary completed, no tertiary			1.054 ***	0.048
at least some tertiary			2.761 ***	0.084
Living in a city (ref = no)				
Partner's occupation (ref = blue collar)				
Agriculture				
Lower white collar				
Upper white collar				
Unemployed				
Partner's education (ref = less than primary)				
primary completed, secondary not				
secondary completed, no tertiary				
at least some tertiary				
Age woman at birth first child				
Age difference (partner – woman)				
Traditional household structure				
Age				
Age^2				

Continues on pages 254 – 255

Model 3		Model 4		Model 5	
Log odds	s.e.	Log odds	s.e.	Log odds	s.e.
Ref.		Ref.		Ref.	
-0.303 ***	0.062	-0.233 ***	0.060	-0.418 ***	0.059
-0.541 ***	0.100	-0.445 ***	0.098	-0.625 ***	0.096
-0.293	0.177	-0.297	0.176	-0.083	0.159
-0.647 ***	0.185	-0.574 **	0.192	-0.824 ***	0.178
				-0.192 ***	0.045
				-0.292 **	0.098
				-0.439	0.738
				-0.569 ***	0.047
				-0.685 ***	0.058
				-0.849 ***	0.151
				-0.779 ***	0.066
				-0.126 *	0.054
				0.295 ***	0.046
				0.765 ***	0.059
				2.315 ***	0.087
				0.630 ***	0.038
				-0.838 ***	0.048
				0.068	0.042
				0.106	0.060
				0.390 ***	0.093
				0.070	0.050
				0.000	0.060
				-0.018	0.085
0.080 ***	0.004			-0.009 *	0.004
-0.014 ***	0.003			-0.014 ***	0.003
-0.048	0.033			-0.061	0.034
				0.180 ***	0.005
				-0.002 ***	0.000

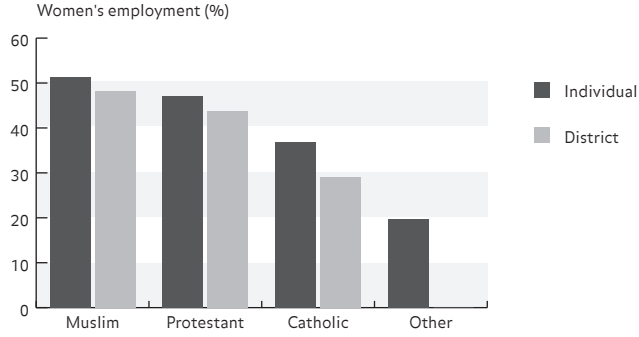
Table 9.3 Continued

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
District level - religion				
Dominant religion				
Islam				
Modernist (more conservative)	Ref.		Ref.	
Traditionalist (less conservative)	0.621 ***	0.116	0.596 ***	0.166
Protestantism	-0.104	0.203	-0.101	0.271
Catholicism	1.057 **	0.369	0.903 *	0.399
Hinduism	1.660 ***	0.313	1.718 ***	0.394
Shari'a	-0.373 **	0.128	-0.361 *	0.150
Presence political Islam: Islamic parties	0.010 *	0.004	0.011 #	0.006
Presence political Islam: Muslim parties	0.007 #	0.004	0.009	0.006
District level - controls				
Economic development: Wealth level				
Male labour supply: Male non-employment				
Labour market structure: Share white collar				
Labour market structure: Share skilled labour				
Degree of urbanisation				
Norms: Women in public sphere				
Norms: Traditional care roles				
GDI Value				
Model statistics				
Intercept	-0.977 ***	0.104	-2.067 ***	0.247
District-level variance	0.095 **	0.031	0.102 **	0.034
Household-level variance	0.664 ***	0.136	0.773 ***	0.162
Deviance	34,792.79		35,445.74	

*p<0.05 ** p<0.01 *** p<0.001 and only for the district-level variables # p<0.10; N_i= 32,265; N_d=33; Models are based on MCMC estimation (5,000 iterations), starting from IGLS models weighted for in-country representativeness (see Chapter 4); Sources: see Chapter 4 and above.

Model 3		Model 4		Model 5	
Log odds	s.e.	Log odds	s.e.	Log odds	s.e.
Ref.		Ref.		Ref.	
0.615 **	0.200	0.543 ***	0.115	0.572 ***	0.139
-0.256	0.245	-0.243	0.204	-0.385	0.250
0.584 #	0.306	0.651 *	0.284	0.702 *	0.295
1.665 ***	0.468	1.349 ***	0.344	1.154 **	0.347
-0.337 *	0.135	-0.322 *	0.151	-0.217 *	0.102
0.009	0.006	0.011 #	0.006	0.009 #	0.005
0.005	0.008	0.013 *	0.006	0.002	0.006
				0.662	0.822
				0.580	1.964
				-1.854 ***	0.456
				3.178 **	1.057
				1.577 *	0.772
		-1.936	1.864	-0.027	1.152
		-7.571 ***	1.364	-7.527 ***	0.988
		0.014 *	0.006	0.020 ***	0.003
-1.352 ***	0.280	-0.533 ***	0.126	-2.632 ***	0.234
0.213 **	0.065	0.074 **	0.026	0.047 *	0.019
1.270 ***	0.167	1.258 ***	0.144	0.665 ***	0.092
37,266.17		37,673.48		33,348.76	

Figure 9.3 Women's employment by religion in Nigeria



138 The role of Christian parties in Indonesia has been marginal.

(Model 1 and Model 2, see also Model 5). Christian women are for instance higher educated than Muslim women, and if we take this into account Christian women have even more lower employment likelihoods than Muslim women. This might indicate that Christian beliefs are particularly unfavourable for women entering the labour market, not for educational participation.

The inclusion of individual-level controls also influences some of the context-level results. Living in the Catholic-dominated district (East Nusa Tenggara) seems to lead to significantly higher employment likelihoods, putting it at the same level as the 'Traditionalist' (less conservative) Muslim-dominated districts (Model 1, 2, 3 and 5). The difference between the 'Traditionalist' and 'Modernist'-dominated districts seems to be related hardly to individual differences, but it is for a (relatively small) part captured by the district-level norm variables. The difference between the Hindu-dominated district and the rest also seems partly due to differences in district-level norms.

The political-institutional variables show a picture similar to the one described above. The incorporation of *Shari'a* in the legislation has a negative effect on women's employment, even after control for individual- and district-level controls. The effects of *Shari'a* seem only partly to work through district-level norms, and the educational and individual-level value variables. Furthermore, not taking into account the economic structures of a district leads to overestimating the effect. After controlling for these factors, employment odds are 20% lower in districts with *Shari'a*-based law than in other districts ($p<0.05$). The political power of Islamic/Muslim parties shows positive significant effects in 2 out of 10 instances (Models 1 through 5, $p<0.05$), and marginal significant positive effects in an additional 4 ($p<0.10$). Political Islam does not seem to influence women's employment negatively; if political Islam has an influence it seems to be a positive effect, though it is not really robust. Moreover, Islamic parties do not seem to have a more negative (or different) effect than Muslim parties.[138]

9.5.2 NIGERIA

The raw employment figures for Nigeria show that 51% of all Muslim women are employed, and 48% of tall women living in a Muslim-dominated district are employed (Figure 9.3). For both the individual women and the districts these figures are higher than for the other religions. In particular non-Christian/non-Muslim women have low employment likelihoods (20%), and Catholic women and districts also trail at a considerable distance behind the other religions. The raw difference between Catholic and Protestant women and districts seems larger than the difference between Protestant and Muslim women and districts.

Table 9.4 and Table 9.5 present the multivariate models. When interpreting the district-level results, it should be taken into account that the sample is limited to 37 districts and that collinearity is high because of embedded classifications: all Sokoto-Muslim districts have implemented the *Shari'a*, and all districts that implemented the *Shari'a* are Muslim dominated (though this is not the case the other way around – see Appendix 9.1). Taking this into account, some variables still show very robust findings at the district level and major conclusions can be drawn.

Firstly, the legislative incorporation of *Shari'a* has a strong negative effect across all models (Table 9.4 as well as Table 9.5), partly working through education and district-level norms. The effect varies across models, but even after controlling for many district-level factors the presence of *Shari'a* remains related to a decrease in employment odds of 76%. In all other models, the effect of *Shari'a* legislation varies between 35% and 92%. For the other variable of political institutionalisation (a governor of the ANPP), no statistically significant results are found in the models. Running the models without the *Shari'a* variable, however, does show a negative and significant effect of the ANPP variable. This could mean that *Shari'a* is implemented in the districts where the ANPP is more powerful, but given that *Shari'a* is implemented in more northern provinces than just those where the ANPP is dominant, it seems that the *Shari'a* influence is simply more influential on women's employment. The durable and stable institutionalisation of certain value systems seems more important than the institutionalisation through changing political power relations in terms of leaders.

Table 9.4 Logistic regression results for models of gainful non-agricultural employed outside, women aged 15–49, neither in school nor disabled

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
Individual level				
Religious denomination				
Islam			Ref.	
Protestantism			-0.299 ***	0.064
Catholicism			-0.346 ***	0.097
Other			-1.856 ***	0.174
District level				
Dominant religion				
Islam	Ref.		Ref.	
Other Islam				
Sokoto-Islam				
Protestantism	-0.480 *	0.223	-0.439 *	0.177
Catholicism	-0.968 *	0.477	-1.427 **	0.575
Shari'a				
Political Islam: Governor from ANPP				
Model statistics				
Intercept	0.162	0.179	0.201	0.142
District-level variance	1.221 ***	0.363	1.346 ***	0.336
Household-level variance	2.262 **	0.819	2.835 ***	0.225
Deviance	33,272.48		32,514.86	

*p<0.05 ** p<0.01 *** p<0.001 and only for the district-level variables # p<0.10; N_i= 27,592; N_d=37; Models are based on MCMC estimation (5,000 iterations), starting from IGLS models weighted for in-country representativeness (see Chapter 4); Sources: see Chapter 4 and above.

Model 3		Model 4		Model 5	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Logg odds**	**s.e.**
Ref.		Ref.		Ref.	
-0.298 ***	0.060	-0.303 ***	0.068	-0.322 ***	0.062
-0.345 ***	0.092	-0.359 ***	0.100	-0.372 ***	0.090
-1.792 ***	0.201	-1.851 ***	0.186	-1.848 ***	0.197
Ref.		-		-	
		Ref.		Ref.	
		-0.558 #	0.325	0.770	0.443
-0.624 *	0.306	-0.625 *	0.273	-0.188	0.186
-1.458 **	0.563	-2.034 *	0.801	-1.014 *	0.411
-0.807 **	0.292			-1.212 ***	0.235
-0.482	0.346			-0.162	0.506
0.581 **	0.202	0.375	0.244	0.181	0.163
1.077 ***	0.326	1.362 ***	0.364	1.223 ***	0.339
2.394 **	0.759	2.803 ***	0.399	2.662 ***	0.578
33,029.16		32,580.45		32,717.26	

Table 9.5 Logistic regression results for models of gainful non-agricultural employed outside, women aged 15–49, neither in school nor disabled

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
Individual level - Religion				
Religious denomination				
Islam	Ref.		Ref.	
Protestantism	-0.284 ***	0.070	-0.676 ***	0.070
Catholicism	-0.339 ***	0.101	-0.739 ***	0.095
Other	-2.026 ***	0.179	-1.664 ***	0.174
Individual level - controls				
Children (ref = no children)				
1or 2, older than 5	0.774 ***	0.081		
3 or 4, older than 5	0.695 ***	0.119		
5 or more, older than 5	0.411	0.530		
1 or 2, at least 1 younger than 6	0.119	0.061		
3 or 4, at least 1 younger than 6	0.487 ***	0.061		
5 or more, at least 1 younger than 6	0.696 ***	0.083		
Partner present (ref = no partner)	0.438 ***	0.071		
Presence male breadwinner (ref = no)				
Education (ref = less than primary completed)				
primary completed, secondary not			0.784 ***	0.057
secondary completed, no tertiary			1.013 ***	0.068
at least some tertiary			1.956 ***	0.104
Living in a city (ref = no)				
Partner's occupation (ref = blue collar)				
Agriculture				
Lower white collar				
Upper white collar				
Unemployed				
Partner's education (ref = less than primary)				
primary completed, secondary not				
secondary completed, no tertiary				
at least some tertiary				
Age woman at birth first child				
Age difference (partner – woman)				
Traditional household structure				
Age				
Age^2				
District level - religion				
Dominant religion				
Islam				
Other Islam	Ref.		Ref.	
Sokoto-Islam	0.668	0.508	0.239	0.411
Protestantism	-1.529 ***	0.388	-0.772 *	0.300
Catholicism	-2.462 ***	0.530	-1.399 #	0.767
Shari'a	-2.511 ***	0.655	-0.808 *	0.356
Political Islam: Governor from ANPP	-0.090	0.364	-0.295	0.495

Continues on pages 262–263

Model 3		Model 4		Model 5	
Log odds	s.e.	Log odds	s.e.	Log odds	s.e.
Ref.		Ref.		Ref.	
-0.336 ***	0.065	-0.313 ***	0.064	-0.770 ***	0.073
-0.379 ***	0.093	-0.370 ***	0.095	-0.863 ***	0.105
-1.765 ***	0.218	-1.858 ***	0.178	-1.771 ***	0.189
				0.178	0.087
				0.058	0.121
				-0.120	0.515
				0.133 *	0.062
				0.119	0.070
				0.142	0.094
				0.406 ***	0.066
				-0.224 ***	0.060
				0.664 ***	0.061
				1.019 ***	0.075
				1.591 ***	0.104
				0.456 ***	0.054
				-1.441 ***	0.090
				-0.025	0.081
				-0.188	0.103
				n.a.	
				0.131	0.071
				0.055	0.077
				0.024	0.101
0.036 ***	0.005			-0.016 *	0.007
-0.001	0.003			-0.002	0.003
-0.081 *	0.036			-0.020	0.040
				0.259 ***	0.013
				-0.003 ***	0.000
Ref.		Ref.		Ref.	
0.321	0.418	0.581 *	0.292	0.276	0.245
-0.950 *	0.415	-0.791 **	0.249	-1.335 ***	0.236
-1.888 *	0.851	-1.850 ***	0.444	-1.909 ***	0.447
-1.327 ***	0.277	-0.437 **	0.206	-1.429 *	0.576
-0.082	0.565	-0.232	0.374	0.077	0.361

Table 9.5 Continued

	Model 1		Model 2	
	Log odds	**s.e.**	**Log odds**	**s.e.**
District level - controls				
Male labour supply: Male non-employment				
Labour market structure: Share white collar				
Labour market structure: Share skilled labour				
Degree of urbanisation				
Norms: Women in public sphere				
Norms: Traditional care roles				
Model statistics				
Intercept	0.849 ***	0.249	0.112	0.355
District-level variance	1.306 ***	0.334	0.894 ***	0.259
Household-level variance	3.488 ***	0.231	2.097 ***	0.356
Deviance	31,775.87		32,344.17	

*p<0.05 ** p<0.01 *** p<0.001 and only for the district-level variables # p<0.10; N_i= 27,592; N_d=37; Models are based on MCMC estimation (5,000 iterations), starting from IGLS models weighted for in-country representativeness (see Chapter 4); Sources: see Chapter 4 and above.

	Model 3		Model 4		Model 5	
	Log odds	s.e.	Log odds	s.e.	Log odds	s.e.
					n.a.	
					3.031 ***	0.709
					3.867 **	1.463
					-0.890	0.565
			6.466 ***	0.685	3.855 ***	0.964
			-3.562 ***	0.303	2.555 **	0.823
	0.189	0.346	-0.347	0.301	-8.394 ***	0.408
	0.991 **	0.305	0.707 ***	0.196	0.472 ***	0.140
	2.205 **	0.785	2.786 ***	0.281	3.217 ***	0.251
	33,095.76		32,563.52		29,508.78	

139 That the effects run in different directions possibly has to do with the role of religion in education. For instance, in the case of Jordan, Jansen (2006: 46) speaks of the Islamisation of education which might lead to higher education levels, but not directly to higher employment. The results found for Nigeria would then suggest a Christianisation of education, but a stronger, second argument would still be needed to explain to labour market difference.

140 $p<0.05$ is a rather lenient criterion for models containing this many respondents.

141 The unexpected positive effect for the traditionalism variable at the district level is less 'worrisome' because of the number of district-level variables. However, this effect is found in other chapters as well and will be addressed in the concluding chapter.

With regard to the dominant religion in a district, the difference between Catholicism and Protestantism on the one hand and Islam on the other seems rather robust as well in the multivariate analyses. In all models, the employment likelihood of women is lower in Protestant districts than in Muslim districts, and lowest in Catholic districts. These differences are neither simply due to the composition of the population in terms of religious denomination (compare e.g. Model 1 and Model 2 from Table 9.4), nor do they seem to be caused by differences in economic development or labour market structures (compare Model 4 and Model 5 from Table 9.5). Given that *Shari'a* is implemented only in Muslim districts, the differences found in Table 9.4, Model 2) might provide better estimates of the cultural differences than the differences found in the models including the *Shari'a* variable. A dominant Muslim culture might be considered a precondition for the implementation of Islamic law. If so, the models including the Islamic-law variable might artificially filter this effect of Muslim culture out. Nevertheless, it seems that the Christian-dominated districts have lower employment rates, which cannot be attributed to the factors that have been controlled for (e.g. individual level differences in education and economic circumstances in the district).

Regarding the differences between various strands of Islam, the results are less clear. The Sokoto and non-Sokoto Muslim-dominated districts seem to differ somewhat, but in Model 4 of Table 9.4 this effect is marginally significant and the employment in the latter is higher, while the difference takes the inverse form in the models including the *Shari'a* variable, though it only becomes significant in Model 4 of Table 9.5. Overall, the support for an effect is very weak. The marginally significant negative effect in Table 9.4 might however indicate that the Sokoto background is fertile soil for implementing Islamic law. Moreover, if I would include the proportion of people being Muslim, Protestant or Catholic – instead of dummies for the dominant religion – then the Sokoto background of districts makes no statistical difference. Summarising, I tend to conclude that there is no strong or robust effect of the cultural dominance in terms of Sokoto and non-Sokoto Islam.

At the individual level, the differences between religious groups differ across models, but the relative position of the groups is rather stable. Muslim women have the highest employment likelihood, then the Christian women (Protestant and Catholic women have about equal likelihoods), and the other women have relatively very low employment likelihoods. Models 1 through 3 (Table 9.5) show that education in particular seems related to women's employment and religious denomination: after controlling for education, the difference between Christian and Muslim women increases. In other words, Muslim women appear to be lower educated and taking out this difference shows an even stronger difference between the two denominations. Again this begs for an explanation why being Christian compared to being Muslim has a positive effect on educational participation but a negative effect on labour participation.[139]

Regarding the individual level differences, it should also be noted that some of the micro-level factors show a different effect than generally expected. For the number of children, having a partner with an upper white-collar job or primary education, and the age of a woman at the birth of her first child, the results are not or only very weakly significant (Model 5, Table 9.5).[140] More noteworthy is the positive effect of having a partner.[141] This might indicate a strong additional economic responsibility for women who are married with children. More than half of the women without a partner is a child or grandchild of the head of the household, which often means that they are less responsible for earning an income (see Chapter 8). However, this is speculation. More generally, the results for Nigeria suggest that some contextual Nigerian characteristics are particularly important in shaping these micro-level effects.

9.5.3 RELIGION AND EMPLOYMENT

The analyses for Indonesia and Nigeria show some (surprisingly) similar patterns regarding the influence of religion, Islam in particular, on women's employment. In the first place, the analyses show that within these two countries, women's employment is not consequently lower for Muslim women or in Muslim-dominated districts. In terms of individual denominations, Muslim women even have higher employment likelihoods than Christian women (Protestant or Catholic)

Figure 9.4 Women's employment by religion for Nigeria, Indonesia and fifteen other countries

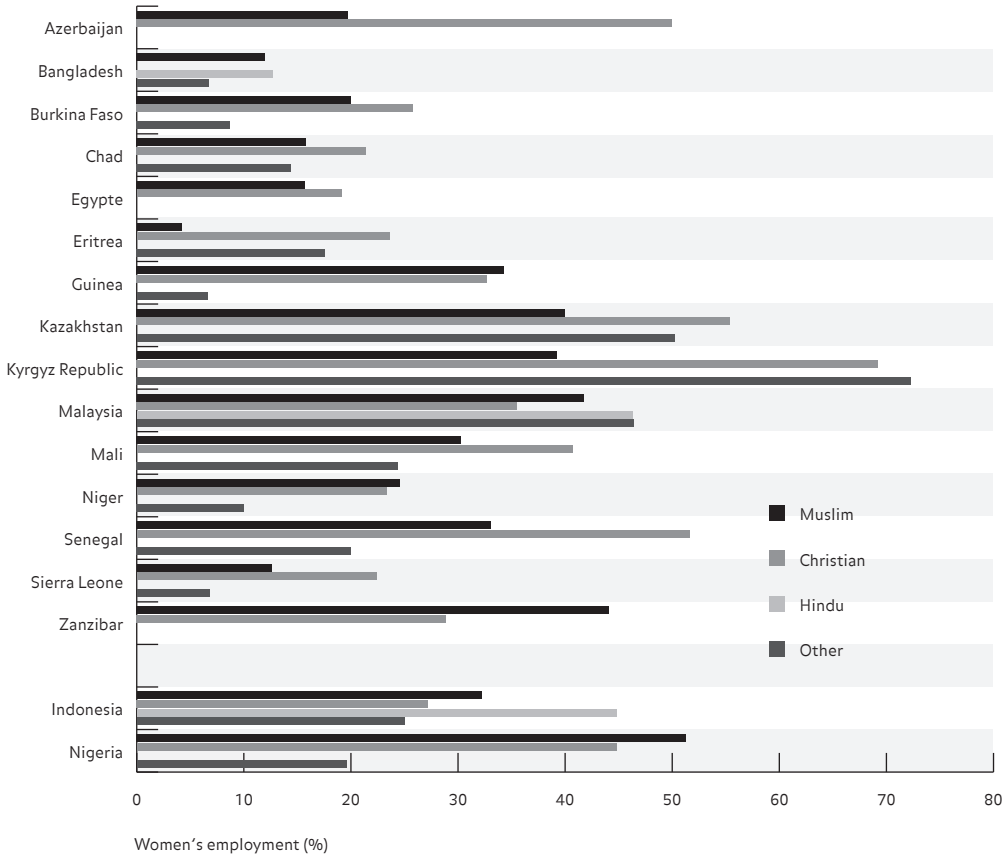
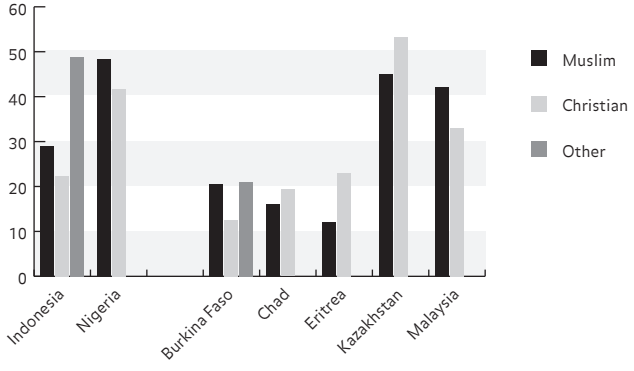


Figure 9.5 Women's employment by dominant religion in a district for Nigeria, Indonesia and five other countries



142 A possible explanation is the availability of types of jobs. However, I assume, and the results from Chapter 7 seem to confirm this, that employers prefer higher-educated women.

in all models – though they are less educated.[142] Secondly, at the district level, the models for both Nigeria and Indonesia show that the difference between strands of one religion (Islam or Christianity) is often just as big as the difference between Muslim and Christian or non-Muslim districts. Thirdly, of the political institutionalisation variables, the implementation of *Shari'a* has a clear relationship with women's employment. In the Indonesian and Nigerian districts with *Shari'a* law, women's employment is considerably lower. The other political institutionalisation variables did not show consistent effects.

9.6 RELIGION BY EMPLOYMENT IN OTHER COUNTRIES

As discussed in the section on the case selection, analyses with this degree of detail and the variation in the variables could only be executed for these two countries. Nevertheless, the religion of the surveyed women is also known for several other countries. In order to assess the generalisability of the results presented above – apart from the methodological discussion of their place in the larger population of countries (Section 9.3) – we can look at the employment levels of the less religiously diverse countries and the countries with fewer districts.

9.6.1 EMPLOYMENT AND PERSONAL RELIGION

Figure 9.4 presents the employment levels of women in fifteen other countries than Indonesia and Nigeria. These figures suggest that the result found for Indonesia and Nigeria cannot be translated directly to other (Muslim) countries, because in ten of the fourteen other countries for which data on Muslim and Christian women are available, the Christian women have higher employment rates (and often considerably higher ones at that). Simultaneously, next to Indonesia and Nigeria, Muslim women in three other countries (Guinea, Niger and Zanzibar) have higher employment likelihoods than Christian ones. Overall, the soundest conclusion regarding the difference between Christian and Muslim women's employment seems that there is no universal difference.

Besides the differences between Christian and Muslim women, Figure 9.4 also highlights some other differences that can provide insight into the role of religion. In the three countries that included substantial numbers of Hindu women (Bangladesh, Indonesia and Malaysia), Hindu women have higher employment rates than either Christian or Muslim women. This might mean that Hinduism includes values regarding women's economic role or gender equality that are beneficial to women's employment. It should however be remembered that the numbers presented in this figure are not controlled for other socio-economic factors and can hardly be causally interpreted. The second noteworthy pattern is that in most cases the 'Other' group scores relatively low on women's employment: in ten out of fourteen cases scoring lowest of all groups. Given that these include different religions ranging from Buddhism to Judaism to Animism, these results suggest that it is not the religion itself, but the size of a religion (a small minority) that plays a role. This draws attention to the context in which one adheres to a certain religion.

9.6.2 EMPLOYMENT AND DOMINANT RELIGION

In five of the countries discussed above, Islam is not the dominant religion in all districts. Figure 9.5 depicts the districts' average employment of women by dominant religion for these five countries. In four of the seven countries for which I have this kind of data, women's employment is highest in districts where Muslim women outnumber Christian women instead of the other way around. Most interestingly, Muslim women in Burkina Faso have lower employment likelihoods than Christian women, but Muslim-dominated districts have higher employment rates than the Christian-dominated districts. However there are only two Christian-dominated districts and Ouagadougou (with an employment rate of 65%) is barely Muslim dominated (54% Muslims, 46% Christian), so this result should be interpreted cautiously. Nonetheless, the overall picture is that at the district level it cannot be concluded that Muslim districts always have lower employment levels. The results for Indonesia and Nigeria – that women's employment is higher in Muslim districts than in others (with the exception of Hindu-dominated district) – cannot be simply generalised either.

Box 9.5

9.1 If a woman is Muslim, the probability a woman is gainfully non-agriculturally employed is smaller than if
x she is not.

9.2 If a woman lives in an area predominantly inhabited by Muslim people, the probability that that woman is gainfully non-
x agriculturally employed is smaller than if she lives in an area predominantly inhabited by people with another religious denomination.

9.3 If a woman lives in an area predominantly inhabited by people adhering to a more conservative type of Islam, the
✓ probability that that woman is gainfully non-agriculturally employed is smaller than if she lives in an area predominantly inhabited by people adhering to a less conservative type of Islam.

9.4 If a woman lives in an area in which *Shari'a* is part of the body of law, the probability that that woman is gainfully non
✓ agriculturally employed is smaller than if she lives in an area in which *Shari'a* is not part of the body of law.

9.5 To the extent the presence of Islamic political actors in an area increases, the probability a woman is gainfully non
x agriculturally employed in that area decreases.

143 The two views might be reconciled by distinguishing different types of labour: Kriger (1993) mainly talks about informal handicraft labour. It might be that this has translated to a relative strong role of women in unpaid and agricultural labour, not in the type of employment that I focus on, which is more influenced by the general level of conservativeness in Sokoto-Islam.

9.7 CONCLUSIONS

9.7.1 OVERALL RESULTS & HYPOTHESES

Based on district- and micro-level analyses of differences in religion and employment in Indonesia and Nigeria, and a rough comparison with data on some other countries, this chapter has tried to shed more light on the influence of religion, more particularly Islam, on women's employment, answering the question: *How and what influence do various types of Islam have on the position of women and more particularly on their employment?*

The results provide important evidence with regard to several of the hypotheses formulated in this chapter (see Box 9.5 for outcomes). Firstly, the analyses of the individual level differences in women's employment likelihood according to their religious denomination shows mixed results. For Indonesia and Nigeria, it can be concluded that Muslim women have higher employment likelihoods, also after controlling for other micro-level characteristics. Still, the results show that Muslim women are lower educated than Christian women, and these results might be specific for the two countries studied here. In a substantial number of the other countries on which some information regarding religious denomination is present, Muslim women indeed have lower employment likelihoods. Overall, the results falsify Hypothesis 9.1. Muslim women do not have consistently lower employment ratios because they are Muslim.

Secondly, regarding the dominant religion in an area, the analyses for Indonesia and Nigeria, in combination with the overview for five other countries have shown that Muslim-dominated districts do not have consistently lower employment levels than other districts (not even after controlling for socio-economic characteristics), refuting Hypothesis 9.2. However, it should again be noted that in some cases Muslim districts did have lower employment rates. More study of sub-national differences could shed light on the relevance of the religious-cultural context, and country-comparative research taking into account different institutional contexts seems worthwhile.

Thirdly, the differences within a major religion (Hypothesis 9.3) can be as important as the differences between religions. For instance, the difference between 'Modernist' and 'Traditionalist' Muslim districts in Indonesia is as large as the difference between Muslim and Christian districts. In Indonesia, the order of religions from low to high employment is: Protestant Christian, Modernist Muslim, Traditionalist Muslim, Catholic Christian, Hindu. For Nigeria, the difference between Sokoto and non-Sokoto Islam was hardly significant and not robust. This might reflect the disagreement in the literature about Sokoto Islam's relative degree of conservatism. However, if any viewpoint is supported, it seems to be that Sokoto-Islam limits women's employment and works partly or mainly through the incorporation of conservative Islam in political and legal institutions. This is more in line with Callaway & Creevey's (1994), Hunwick's (1992) and Kritz & Makinwa-Adebusoye's (1999) point of view that Sokoto-Islam is relatively conservative, than with Kriger's (1993) which proposes that women historically have had an economic role in it.[143] Overall, these results resonate with literature on Protestantism and gender in Western countries, and on the realisation that conservativeness is a better explanatory factor than denomination (Ammons & Edgell, 2007; Chadwick & Garrett, 1995; Civettini & Glass, 2008; Sherkat, 2000). Overall, the results for these two countries support the idea that the kind of Islam – in terms of conservativeness, not denomination – in the district is more relevant for women's employment.

Fourthly and most clearly, the legislative codification of orthodox (*Shari'a*) seems to harm women's employment (Hypothesis 9.4). This result supports the earlier conclusion in Chapter 6, in which the codification of conservative Islam in the constitution was found to be the most important country-level variable.

Lastly, I studied the presence of political parties, and from the results for Indonesia and Nigeria it can be concluded that the influence of Islamic political parties is not unequivocal and the effects are uncertain. In Nigeria, consistent negative effects are found, but they are hardly statistically significant. For Indonesia the effects are consistently positive and the overall number of (marginally) significant relationships suggests at least a possible positive effect of the presence of Muslim and Islamic parties on women's employment. Political Islam has not only a

negative influence on women's position so it seems. A logical explanation for this can be found in the broader profile of political Islam. For instance, Pepinsky (2009) notes for Indonesia that:

> *Of course, not all Indonesian progressives are so deeply concerned about the rise of PKS or of political Islam more broadly. Some are more concerned with empowering the poor, … fighting for civil rights and gender equality… For many of these causes, PKS and other Islamic parties can be allies rather than competitors.*

In other words, Islamic values also incorporate ideas about socio-economic relationships and inequality, which benefit the poor. These are the values that might drive political actors and through that way help to create economic opportunities (see also Kotarumalos, 2009). More generally, in many countries political Islam is fuelled by economic inequalities. Islamic parties are often people's parties and the Islamic concepts of egalitarianism and social justice can be translated into socio-economic policies (see Esposito & Voll, 1996; Owen, 2004). The Islamic and Muslim parties' focus on the poor might thus explain the observed results as well as why no clear difference was found between the Islamic and Muslim parties in Indonesia.

9.7.2 LIMITATIONS AND IMPLICATIONS

To study the possible influences of Islam cross-sectionally, many studies have fallen back to measuring the denominations of individuals, the denominations that are dominant in an area, or the percentage of people that adheres to a certain religious denomination. Other data on specific religiously motivated values and religious institutionalisation are hardly available or show too little variation to be of use. Limitations in data have also restricted the analyses in this chapter, in particularly with regard to (1) measuring societal religious norms, individual religious values, and the difference between strands of one religion, and consequently (2) the selection of cases. Regarding the case selection, the two country studies performed here are still an important step forward, because they enabled me to test existing ideas about the general influence of culture as synonymous with religious denomination within a country, and because they provided a good basis for testing the importance of the political institutionalisation of religion. Although the results cannot be automatically generalised to other countries, the evidence presented here is sufficient to disprove the applicability of some general theories, at least at the sub-national level, and in that sense they do have broader implications. For the civilisationist theories, Indonesia and Nigeria were among the cases most likely (see Gerring, 2007: 120–1) to confirm civilisationist theories because they showed high employment and relatively small Muslim populations. Yet they did not, because the Muslim women were the ones that caused the high employment figures. This can be seen as smoking-gun evidence against these theories (Van Evera, 1997).

Of course, the internal validity should also be taken into consideration when it comes to the variation within countries at the district levels, especially for the dominant religion in a district, as some religions were only represented by one or a few districts. The results for those districts might be partly explained by idiosyncrasies. For instance, Bali – the only Hindu district in Indonesia – has an economy that is strongly fuelled by tourism: it is one of Indonesia's main attractions. The job opportunities in the tourist sector and economic growth caused by tourism might explain the relatively high level of women's employment in this region. I have controlled for this by including economic factors and labour market structures in the models, but the effect found for being a Hindu-dominated district should still be treated cautiously – the information on other countries, however, tends to support the conclusions drawn from the Bali case. Similarly, the high employment in East Nusa Tenggara can be due to a factor not controlled for, and not be related to the province being predominantly Catholic. However, this risk of ignored idiosyncrasies is only particularly high for the denomination variables at the district level and then mostly for the Hindu and Catholic districts in Indonesia. For the difference between Muslim and Protestant districts it is hardly problematic.

The measurement of values and norms was not optimal in this chapter. However, the general usage of denominations makes the results of this chapter comparable to studies that

Box 9.6

- ✓ Women who adhere to a more conservative Islamic tradition or women who live in areas in which a more conservative Islamic tradition is dominant have an employment likelihood that is lower than that of women who do not;
- ? For each religion the same argument can be formulated: it is the degree of conservatism that influences women's employment, not the religious denomination [not tested];
- ✓ Women's employment in the Islamic denomination is not consistently lower than that in the other religions' denominations, in other words, some Islamic groups have higher employment rates than for instance some Christian groups, and others have lower employment rates than Christian groups;
- ✓ Islam influences women's employment likelihood through different channels at different levels (e.g. individual, community) and these different channels and level can lead to Islam having contradictory effects with respect to the likelihood that a woman is employed.

144 The analyses in Chapter 6 have also shown that the institutionalisation of (conservative) Islam is more important.

compare the Muslim world with the West. Consequently, the results here cannot be dismissed as originating from another way of measuring religion. Because of a lack of data, the district-level measurements were limited. In this chapter, I have followed the general guidelines by including at least 25 higher-level units (see Jones & Duncan, 1998), but the statistical power still remains limited to 33 and 37 units, respectively and the number of variables that can be included is fairly restricted. I would argue that more data collection about political and cultural differences at the district level should be an important goal for this kind of research, as the variation at that level seems important in both explaining intra-country differences and in testing macro-level theories. The access to cross-country comparative district-level data would tremendously benefit such research.

With these limitations in mind, at least three major broader conclusions can be drawn for the study of the role of religion in establishing gender equality (see Box 9.6). These refer back to the general expectations formulated in Section 9.2.2. Firstly, there is no empirical proof for there being 'one Islam', and thus it is also impossible (or highly unlikely) that Islam has a single (negative) effect on women's employment or position. Measuring only the presence of Islam is not only not the best way to establish whether conservative Islam is influential,[144] it also ignores the differences within a religion, which seem more important than the religion itself. The focus should be on the particular message that materialises in a specific form, time and place, and new comparative datasets are needed to do so.

The simplistic way in which religion is often measured can partly be traced back to the underspecification of theories in this field, which brings me to my second conclusion. The civilisation approach (see Clark, Ramsbey & Adler, 1991; Fish, 2002; Inglehart & Norris, 2003a, 2003b; Norris & Inglehart, 2002; Lincove, 2008, Yuchtman-Yaar & Alkalay, 2007), which still holds a rather dominant position in the literature that compares 'Muslim' with 'Western' or 'Christian', either implicitly or explicitly, is hardly empirically supported. Indonesia and Nigeria are two cases with relatively high employment figures for Muslim women (controlled for economic development and structures), and both have relatively many non-Muslims citizens. The presence of the many Christian (and some Hindu) women should have been the ideal situation for civilisationists to explain the relatively high employment figures of women in these countries, because according to this logic the Christian women should be employed more. The empirical data, however, show otherwise: in both countries the Muslims and the women in Muslim areas are more often employed than people of other denominations. These results refute the country-level interpretation of the civilisation logic (see Figure 9.1), but it could still be argued that these two countries' overall culture is less Muslim because of the many Christians. However, the results from comparing countries do not translate to the sub-national and individual level. This means the civilisation logic is restricted to the country level at best, but even that conclusion is doubtful given the empirical proof in this chapter and the problematic methodological aspects of how the theory has been tested (and confirmed) so far. Due to the geographical clustering of Muslim countries, alternative explanations deserve more attention. Amongst those are the abundance of oil (cf. Ross, 2008), colonial history (cf. Spierings, 2007), or the economic world system (cf. Moghadam, 2003).

In reaction to this literature and building on the framework presented in this thesis, I have formulated an alternative and more promising way to understand the influence of religion. By distinguishing multiple levels in explaining women's position it immediately becomes clear that religion (Islam) can manifest itself in various ways simultaneously. Logically, this means that it can also take on different forms and substances. Substance here refers to value patterns, while form includes, for instance, norms and policies that are reflected in women's opportunities. Form can also include needs that are value-based assessments of, for instance, the care demand and supply in a household. This chapter has shown that multiple and contradictory effects indeed seem to exist. The institutionalisation of conservative Islam in law has a strong and negative effect, but Islamic-motivated political actors might have positive effects; a dominance of Islam in a region is associated with more employment compared to a Catholic dominance, but the dominance of conservative Islam is less beneficial than that of a less conservative Islamic value pattern; Muslim women seem lower educated and consequently less employed, but Muslim

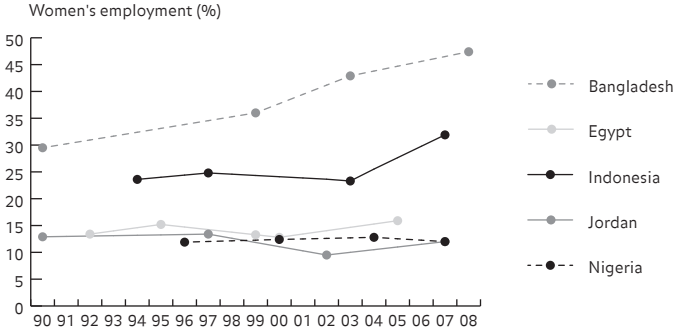
women are overall more often employed than non-Muslim women. To denote this idea of a multivocal influence of Islam, I have used the metaphor of the message and the messenger in Section 9.2. To truly understand how religion influences women's position, it is crucial to acknowledge that each religion contains multiple messages, and that each message can be articulated by different messengers, as it is said in the *Quran*: "Apostles come to you (...), who convey my messages" (Surah 7:35).

Table 10.1 Micro-level developments in Egypt 1992–2005

	1992	1995	2000	2005
Women's employment	13.4	15.2	12.8	15.9
Explanatory variables				
Education				
less than primary completed	69.5	63.0	56.6	46.1
primary completed, secondary not	11.1	12.9	13.0	14.0
secondary completed, no tertiary	14.9	17.7	22.8	29.8
at least some tertiary	4.5	6.4	7.6	10.1
Living in a city				
urban	46.4	45.5	42.8	41.4
rural	53.6	54.5	57.2	58.6
Marital status				
married	92.7	92.1	92.5	93.3
widowed or divorced	7.3	7.9	7.5	6.7
Age difference	7.41	7.35	7.16	6.89
Traditional Household (0–2)	0.38	0.35	0.35	0.30
Number of children	3.4	3.1	2.9	2.8
Partner's education (0–5)	1.9	2.0	2.3	2.6
Age first birth	20.4	20.5	20.8	21.2
Partner's occupation				
agriculture	0.28	0.25	0.21	0.16
blue collar	0.32	0.30	0.34	0.35
lower white collar	0.18	0.16	0.11	0.15
upper white collar	0.22	0.27	0.33	0.29

Notes: weighted averages; Sources: DHS Egypt 1992, 1995, 2000, 2005 women's and household survey, retrieved from the DDW.

Figure 10.1 Women's employment trends in five countries



145 For marital status and the partner's non-agricultural occupation the figures show a somewhat more mixed picture; but in the case of Egypt only ever-married women are included in the sample. No data on the other women are available in the surveys. Only living in a city shows a counteracting trend. Given the coefficients found in Chapter 6, this development would not lead to an overall decline, because the other effects outweigh its relative strength.

Chapter 10

Theme 4: A longitudinal perspective

Egypt: globalisation, violence and shifting influences

10.1 IT TAKES TIME

Contrary to the cross-sectional perspective of the previous empirical chapters, this chapter takes up a more longitudinal perspective. At first this might seem to uncover a discrepancy between empirical reality and developments over time vis-à-vis the results from the cross-sectional chapters and the expectations formulated in Chapter 3. However, a closer look at the developments in Egypt will show how the theoretical building blocks of the NOV framework (Chapter 2) help to understand the dynamics between the explanatory forces at work on the individual, household, sub-national, national and global levels, thus helping us structure the multitude of influences on women's employment.

The seeming discrepancy is clearest in the literature that expects women's employment to have risen constantly over the last decades. This literature can be divided into two camps: the literature on micro-level effects and the macro-level literature on globalisation. As the first kind of literature shows us, important micro-level factors, such as education and the number children, have developed in favour of more employment. For instance, the number of educated women in Egypt has risen considerably between 1992 and 2005 (see Table 10.1). Less than 20% of the women had completed secondary education in 1992, and 40% had done so in 2005. The average age difference between partners, the proportion of women living in a household with a traditional structure, and the proportion of partners working in agriculture all declined during this period, while the average age of a woman at the birth of her first child steadily increased and the average number of children changed from 3.4 to 2.8.[145]

The second kind of literature formulates a similar prediction regarding the higher-context levels (district, national, and global). We know that norms of public participation and the creation of light-manufacturing and service-sector jobs both influence women's employment positively (see Chapter 6). Then, if the on-going process of globalisation is seen as a driving force for economic reform and the diffusion of gender equality norms leading to economic development and (post-) industrialisation, steadily growing employment figures for women could indeed be expected (see Black & Rainerd, 2004; Gray, Kittilson & Sandholtz, 2006; Meyer, 2003; Richards & Gelleny, 2007; Villarreal & Yu, 2007; cf. Cheng, 1999; Osman & Ali, 2001: 95–8; Posusney & Doumato, 2003; Scholte, 2001).

Instead of giving an accurate picture of reality, these perspectives appear to be part of what Hakim (1995: 430) calls "the myth of rising female employment" (see also Assaad, 2004). For the five countries of which the DDW provides four surveys between the early 1990s and the late 2000s, clearly no unambiguous rising employment figures have been found. In Figure 10.1, only Nigeria shows a constant upward trend. Three of the five other countries (Egypt, Indonesia, and Jordan) show drops in employment around the second half of the nineties, and in Bangladesh declining employment figures are found between 2004 and 2007. But if the 'positive forces' were on the rise, why then did women's employment not increase? Taking into account the dynamics between factors at different levels might help answer this puzzling question.

I hope to further our understanding of the dynamics between macro- and micro-level factors influencing women's employment by applying my framework and zooming in on the discrepancy in the case of Egypt. The backbone of the analyses is made up of datasets at four points in time (1992, 1995, 2000, 2005), complemented with other macro-level data and background information on the social, economic, and political context. The choice for Egypt will be further motivated in

146 I do think that most if not all aspects of causal complexity can also be modelled statistically, but before that modelling takes place it should be known what the shape of the causal complexity is expected to be.

147 These are only the standard DHS collected and processed in the DDW. This excludes the DHS of 1988 (in which, by the way, not all necessary variables might be present). It also excludes the interim DHS of 2003, and at the time of this research the DHS 2008 was not yet available.

Section 10.2, where the developments in women's employment between 1992 and 2005 are also discussed in greater detail. To solve the puzzle, I will first study the globalisation argument, using the concept of globalisation set out in Section 10.3, and discuss its potential multifacetedness in influencing women's employment. Subsequently, Section 10.4 will discuss the developments in the factors derived from that approach and their relevance to the case of Egypt, as well as their interrelatedness and connection to the development of women's employment. 'Cultural' violence and government retrenchment in particular seem to explain the declining employment in several districts. From Section 10.5 onward, the focus shifts towards micro-level factors. I will start out with a brief diagnosis of the literature, studying how the framework applied here predicts that effect change over time. In Section 10.6, I will then explain how the effects are modelled, and discuss the strongest patterns; those found for education and for the presence of young children and male breadwinners. The conclusion (Section 10.7) compares the summarised results with those in the previous chapters, and I will reflect on the generalisability of my findings.

10.2 EGYPT

10.2.1 A CASE STUDY

This chapter starts from a longitudinal perspective that stresses the interrelatedness between levels of explanation. This means that I want to track developments in women's employment over time, and that I want to be able to distinguish between individual, household, district, and national/global-level developments. Given this goal, the data sets used in this study are very useful, but once the bar is set at measuring women's employment on at least *four* points in time, only five countries (see Figure 10.1) remain. Both the low number of measurements over the years and the nature of this chapter, which leans more towards generating hypotheses, thus argue for an in-depth study. This way the variation within a country can counteract the problem of too many variables (global-level factors) and too few cases (only four country-level measurements) (Gerring, 2007; see also King, Keohane & Verba, 1994). Furthermore, a case study allows tbetter laying bare different aspects of causal complexity.[146] In order to provide the necessary depth, I have chosen to focus on only one country in this chapter, and combine solid descriptions, multiple data sources (including those that could not be used in Chapter 6's cross-sectional comparisons), as well as within-case variation, for instance at the district level.

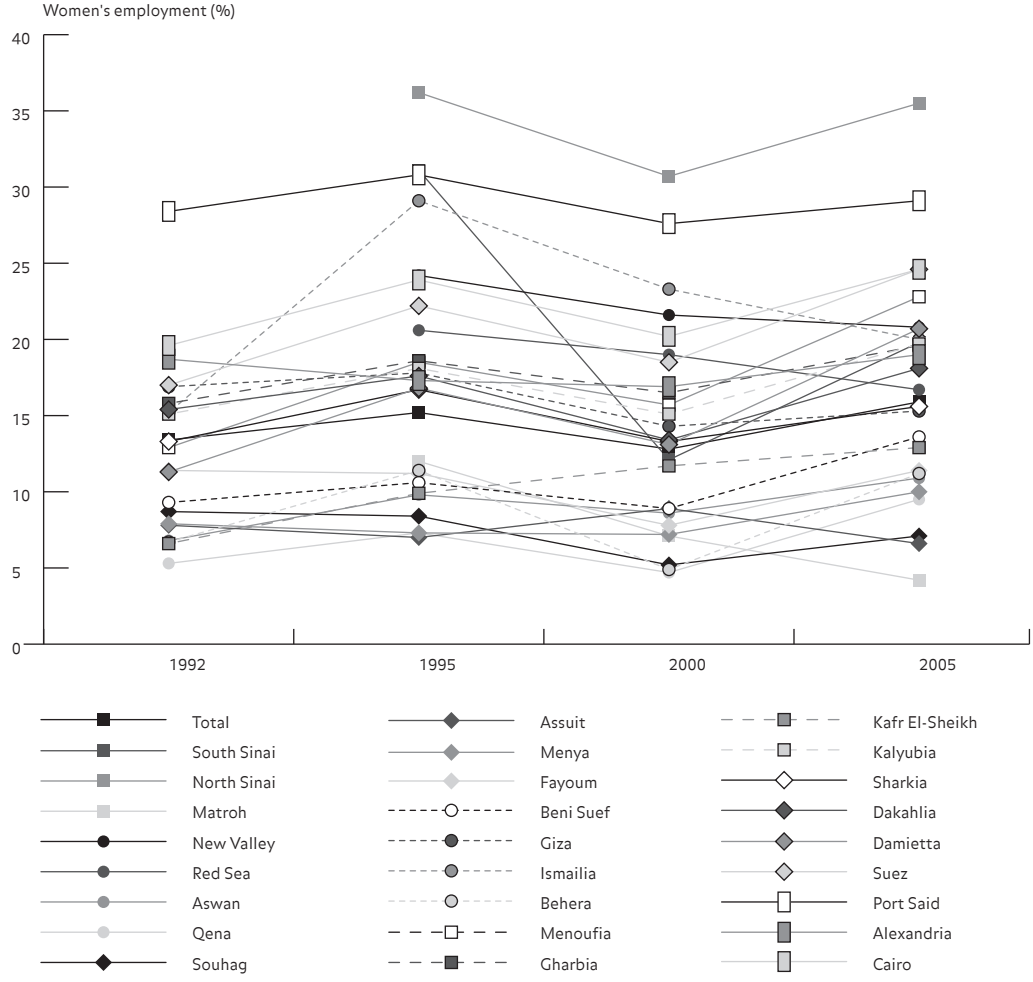
Of the countries mentioned in the introduction, not all countries' older surveys contain the information needed to operationalise the necessary variables, which is important in ensuring that comparisons over time are fruitful. With regard to my definition of the population (working-age women who are neither in school nor disabled), it is also important that the operationalisation over the different years is similar. Furthermore, and thus the overall leverage – statistically at least 25 districts are also preferred (Paterson & Goldstein, 1991). Lastly, it is desirable to have some variation in the different clusters of factors related to globalisation, just as the availability of secondary data matters. These criteria have led to the selection of Egypt. The DDW contains data for four years (1992, 1995, 2000, and 2005).[147] In all cases but one, 26 districts are included (in 1992 the five desert Frontier Governorates were not sampled). After deleting respondents with missing data, 55,149 (ever-married) women remained: 9,482 for 1992; 13,490 for 1995; 13,000 for 2000; and 19,177 for 2005. All variables are operationalised as discussed in Chapter 4. The models applied to these data are five-level cross-classified models: the women are nested in the household, the household in the year-district and the year-district in both the district and the year. The other specifications are similar to what has been discussed in Chapter 4.

Overall, it should be taken into account that the outcomes of the analyses in this chapter cannot be directly applied to other Muslim countries. To what extent and in what way outcomes do say something about the larger population is discussed in greater detail in the concluding section of this chapter.

10.2.2 EMPLOYMENT TRENDS

In this section, the employment figures presented for Egypt in Figure 10.1 will be broken down along two lines: the differences between districts, and the differences by age, the latter to

Figure 10.2 Women's employment trends in 26 Egyptian districts



148 A second explanation would be that these are not global or national processes, but that there is a survey effect. This seems unlikely: firstly, the samples are weighted, and thus representative. Secondly, the patterns found for most other variables, such as educational participation and fertility, do show the expected developments very clearly. Thirdly, neither the measurement of being gainfully employed, nor the questions and codings used by DHS substantially changed between these surveys.

149 In MLwiN the 'predictions' are used to estimate the outcomes based on coefficients derived from the model given in the main text; the intercept coefficients and time dummy coefficients of this model are included in the prediction function. A similar estimation could have been made with a fixed-effects model including dummies for every district-time point. However, in such a model district-level explanatory variables could not be included later on.

150 The coefficients for the time dummies with 1992 as their reference group are: for 1995, 0.077 (s.e. 0.090); for 2000, – 0.407 (s.e. 0.096); and for 2005, – 0.473 (s.e. 0.106).

151 The actual years should be treated somewhat cautiously because only four years are included. For instance, the decline period can as easily have taken place from 1999 to 2006, or 2001 to 2004.

152 Such a pattern might have been related to a trend of women marrying later in life, because many women stop working once they get married (see Amin & Al–Bassusi, 2004). However, that cannot be the case here, because the sample only includes ever-married women.

uncover cohort effects. Figure 10.2 presents the development per district. Overall, women's employment was about 2.5 percentage points higher in 2005 than in 1992, but after a rise in the early 1990s, women's employment dropped, until it rose again at the start of the new millennium. This general pattern is also found in 17 out of 26 Egyptian governorates. Nonetheless, some other patterns do turn up. For instance in the three large desert governorates (Matroh, New Valley, and Red Sea) women's employment constantly declined over these 14 years, and in four Middle-Egypt Nile governorates (Assuit, Fayoum, Menya, and Souhag) irregularities are found compared to the overall pattern. That the overall pattern is found in a clear majority of all districts, however, indicates that some processes at the national or global level play an important role in influencing women's employment.[148]

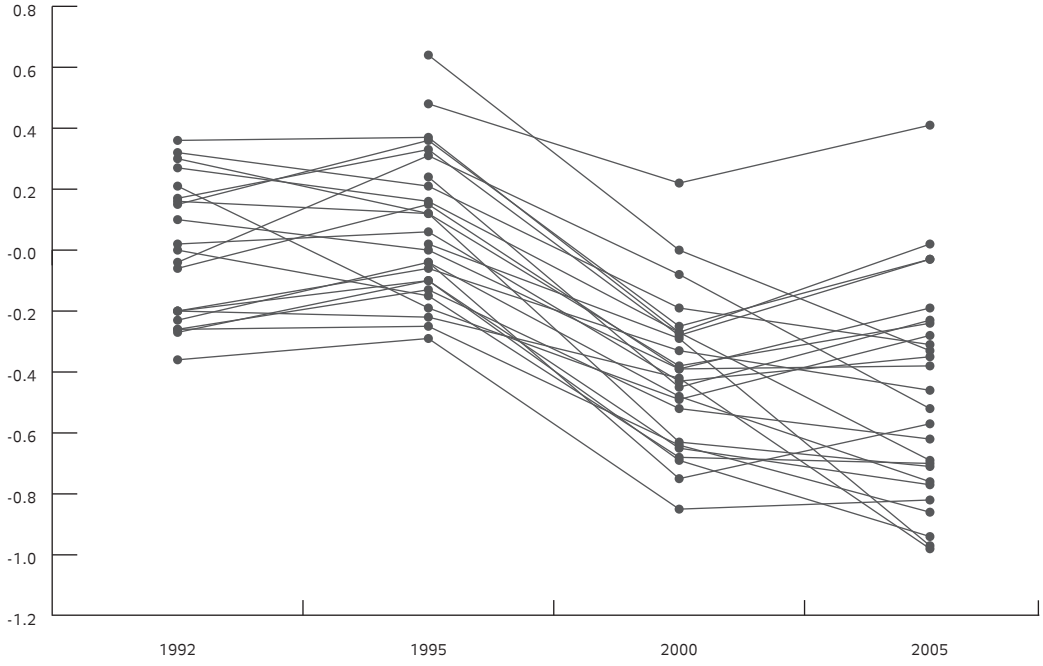
While micro-level changes in educational levels, fertility, and other fields might not fully explain the longitudinal developments in women's employment, differences in these characteristics might still be partly responsible for changes in women's employment in the 26 Egyptian governorates. Moreover, micro-level factors might have developed differently in the various governorates. A prime advantage of multilevel analyses is that micro-level effects can be filtered out, leaving a net macro-level development. By using a multilevel model with the explanatory factors at the micro-level, using dummies for the different years with random coefficients, and including a random intercept at the district level, a graph can be extracted that shows the macro-level employment developments while also taking into account increasing levels of education, decreasing fertility, and so on.[149] Figure 10.3 shows these developments for each district.

The general trend found in the model presented below is also found in most of the districts: after control for micro-level factors, women's employment stays rather stable between 1992 and 1995, and between 2000 and 2005, but a substantial decline is found between 1995 and 2000.[150] [151] It seems that some (combination of) processes at the country and global levels considerably damaged women's employment chances at the start of the new millennium, while at the same time few processes clearly furthered women's employment (or were annulled by other, negative processes).

A second way to zoom in on the figures found for Egypt is to look at different effects for different cohorts of women. Because I use representative samples, the women aged 15 in 1992 can be treated as the same group as those that are 18 years of age in 1995, 23 in 2000, and 28 in 2005. Thus, employment figures can be plotted for each 'year group' or cohort that was aged 15 through 36 in 1992, as is done in Figure 10.4. A closer inspection of the somewhat differing patterns reveals a rather strong picture in which women's employment is relatively stable or rising in the periods 1992–1995 and 2000–2005 in all districts, but between 1995 and 2000 three distinctly different patterns can be distinguished. The women born between 1970 and 1977 (aged 15 to 22 in 1992) show a consistently strong increase in employment between 1995 and 2000. Employment figures decline for women born between 1956 and 1962 (aged 30 to 36 in 1992) – only for women aged 32 or 34 in 1992 the lines are approximately flat. For the other women (born between 1963 and 1969), the developments are between those two extremes, but more mixed: employment shows a steep increase (1963, 1966, 1967), a moderate increase (1965, 1968, 1969), or a decrease (1964). The declining trend found for the eldest group (born between 1956–1962) might even be stronger than the figures suggest; the eldest women in 1992 were not included because I have no information on these women for all years up to 2005. However, when for instance the women aged 41 in 1992 (and thus 44 in 1995 and 49 in 2000) are studied, this declining trend is also found, and it indeed seems to be even stronger. Of the women aged 40–44 in 1995 17.7% was employed, which decreased to 9.0% for the women aged 45–49 in 2000. Overall, the decline in women's employment between 1995 and 2000 seems to be mainly attributable to women in their 30s and 40s quitting or being fired.[152]

The patterns presented here do not fit the general expectations that could be derived based on the 'positive' developments of the explanatory factors at either the macro or micro level, as was discussed in the introduction to this chapter. In Sections 10.3 and 10.4, I shall examine the dynamics and the influence of macro-level factors further, and apply the framework of this thesis to the found discrepancy, and in Section 10.5 and 10.6 the same will be done for the micro-level factors.

Figure 10.3 Women's employment in 26 districts after filtering out changes in micro-level effects



153 These developments might come at the cost of traditional and agricultural labour (see Bergeron, 2001; Pfeifer & Posusney, 2003; Richards & Gelleny, 2007; Walby, 1996).

10.3 GLOBALISATION AND WOMEN'S EMPLOYMENT

Taking a longitudinal perspective, one of the strongest processes described in the literature is that of continuing globalisation, which is generally depicted as creating opportunities and circumstances that foster women's employment either directly or on the mid-long term (generally operationalised in time-lags of 5 to 9 years [Black & Rainerd, 2004; Gray, Kittilson & Sandholtz, 2006; Meyer, 2003]), and globalisation is surely connected to many macro-level processes. However, as shown above, such a clear continuous rise in employment has not been found for Egypt between 1992 and 2005. While globalisation might have been present and the context has become more globalised, the approach taken in this thesis suggests that the overall ideas about women and globalisation need to be disentangled in order be able to see which mid- to long-term developments might also harm women's employment (see also Bergeron, 2001; Moghadam, 2007; Posusney & Doumato, 2003; Pyle & Ward, 2003).

Particularly in the fields of economics – the neoclassical, neoliberal, and the 'Washington Consensus' schools – and sociology – the modernisation school – scholars tend to argue that globalisation betters women's position and increases women's employment (see Elson, 2009; Harrison, 2005; Jaquette, 1982; Posusney & Doumato, 2003; Serra, Spiegel & Stiglitz, 2008). Underlying this process are developments such as economic liberalisation, the creation of jobs, economic development, political liberalisation, and a shift towards secular and gender equality values, all of which stimulate women to become part of the labour force (e.g. Black & Rainerd, 2004; Gray, Kittilson & Sandholtz, 2006; Inglehart, 1997; Lerner, 1958; Meyer, 2003; Norris & Inglehart, 2002; Richards & Gelleny, 2007; Villarreal & Yu, 2007). However, the multitude of aspects already listed here shows that globalisation is a multidimensional process (see also Bergeron, 2001; Moghadam, 2007; Osman & Ali, 2001; Pyle & Ward, 2003).

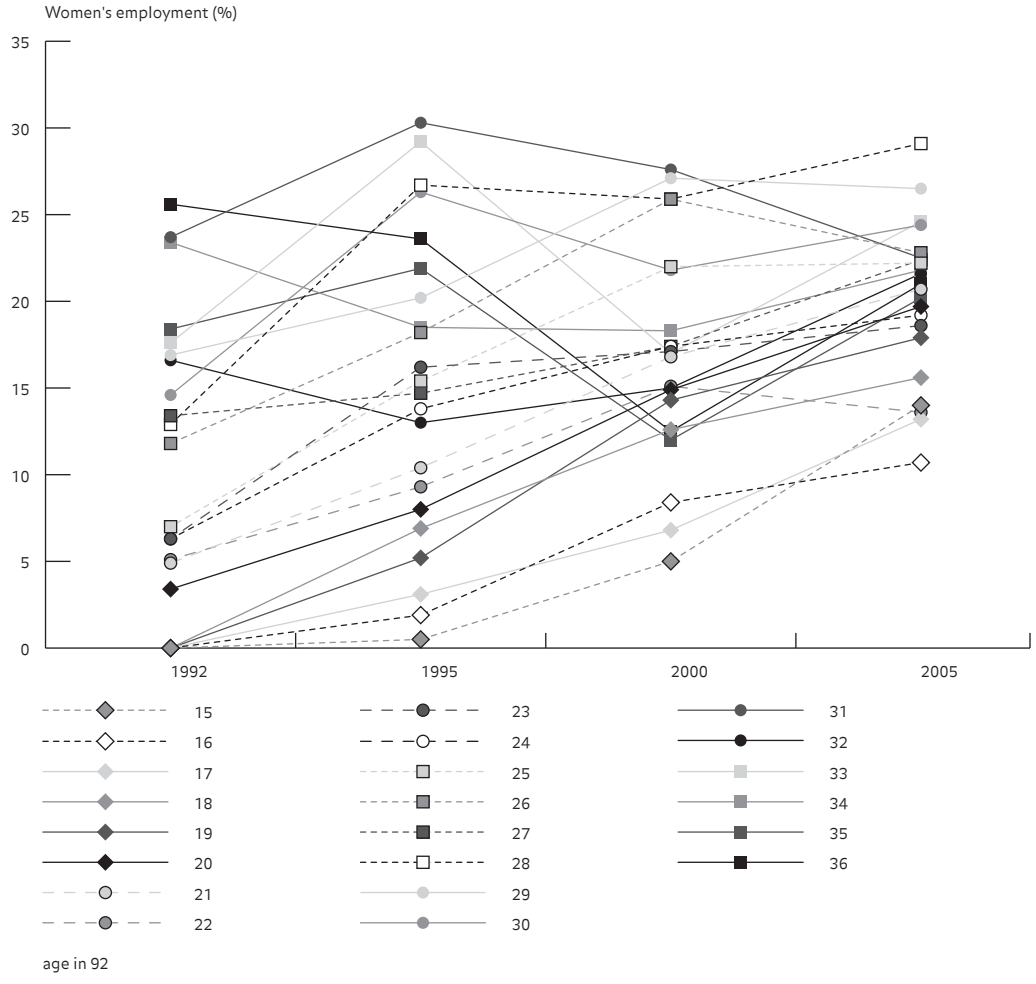
I perceive globalisation as a process in which the costs of communication decrease, distances become relatively shorter (or easier to cover), and thus as Scholte (2001: 14) says "territorial places, territorial distances and territorial borders lose some of their previously overriding influence" (see also Nye, 2000: 198; Walby, 2009: 43). This overall process of globalisation does indeed seem to be a trend of ever decreasing distances and costs, but its consequences can influence women's employment along different lines. The effects discussed in the literature can be grouped under three headings, which will serve as starting points for the analyses in this chapter: global economic politics, political liberalisation and value diffusion, and international conflict.

10.3.1 GLOBAL ECONOMIC POLITICS

In many developing and Muslim countries the global economic regime enforced economic reforms through WorldBank and International Monetary Fund policies. The IMF mainly provides loans to countries that have problems paying their international debt, while WorldBank loans are generally intended to develop economic infrastructure. In return for these loans the receiving countries have to implement policies of economic liberalisation and privatisation because it is believed that this is beneficial to the economic stability and long-term development of the countries (see Çağatay & Özler, 1995; Greenaway & Morrissey, 1993; Moon, 2001).

These economic restructuring policies are also linked to women's (non-agricultural) employment, as has been discussed in Sections 3.3 and 3.4. In short, the argument can be dissected into two parts. Firstly, liberalisation is expected to lead to more employment in low-wage countries and to feminise the labour force, because women are cheap, flexible, and docile (Black & Rainerd, 2004; Çağatay & Özler, 1995; Clark, 1992; Meyer, 2003; Richards & Gelleny, 2007; Villarreal & Yu, 2007 – see also Sections 3.3 and 3.4).[153] However, depending on the competitiveness of the local labour market, economic liberalisation might also lead to a (short-term) loss of jobs if an industry is not competitive. Secondly, privatisation leads to shrinkage of public sector employment, which is a relatively feminised sector: privatisation hurts women's employment (Assaad & Arntz, 2005; Moghadam, 1998; Nassar, 2003; Pyle & Ward, 2003; Posusney & Doumato, 2003; see also Richards & Gelleny, 2007). The economic dimension of globalisation can thus have contradictory effects that should manifest themselves at the district-level labour market characteristics.

Figure 10.4 Women's employment developments by cohort



10.3.2 VALUE DIFFUSION AND POLITICAL LIBERALISATION

While the causal relationship between globalisation and democracy is still debated, it has been observed that globalisation and democratisation go hand-in-hand (some contributions to the discussion are: Doces, 2006; Eichengreen & Leblang, 2006; Li & Reuveny, 2003; Rudra, 2005; Zimmerling, 2003). Important here is that part of the proposed causal mechanism linking the two entails citizens becoming more critical, a spill-over effect of economic to political liberalism, and the spread of egalitarian values because people can observe freedoms of people in other countries.

Consequently, this process can be linked to what has been discussed in Sections 3.5 and 3.6 regarding the influence of the political system and value patterns. A more open political system gives room to equality policies in order to satisfy large parts of the constituency (see Fergany et.al., 2003, Posusney & Doumato 2003; Spierings, Smits & Verloo, 2009; Yousef, 2004), and the diffusion of equality values fosters both democracy and women entering the public sphere (see Dorius & Firebaugh, 2010; Gray, Kittilson & Sandholtz, 2006). Overall, the political dimension of globalisation singularly seems to work to women's advantage, and is thus expected to work through the shifts in people's attitudes and through changing macro-level opportunity structures and values captured in societal norms.

10.3.3 INTERNATIONAL CONFLICT

As globalisation seems both negatively and positively linked to conflict, the relation between the two has got considerable scientific attention (e.g. Barbieri & Schneider, 1999; Huntington, 1993, 1996; Kahler & Walter, 2006; Nye, 2000; Schneider, Barbieri & Gleditsch, 2003), and cross-border conflicts have also been related to the inflow of women into the labour market (see e.g. Chafe, 1972; Fernandez, Fogli & Olivetti, 2004; Goldin, 1991).

Basically, when men are being called to the front and are absent from the household, women are pulled into the labour market to fill the (manufacturing) positions of men or provide the household with an income. Once women are on the labour market, their and societies' stereotypes and values might shift towards a more divers economic role of women. Bahramitish (2003), for instance, argues that the economic necessity at the household and societal level positively influenced women's economic participation in Iran during the Iraq-Iran war (1980–1988), and that women's involvement in the revolution and the war gave them political leverage afterwards to bring about policy changes. International conflict can thus influence women's employment during and after a war through shifts in the male labour supply, and indirectly through economic needs and value changes at the micro level. Internal conflicts might have similar effects.

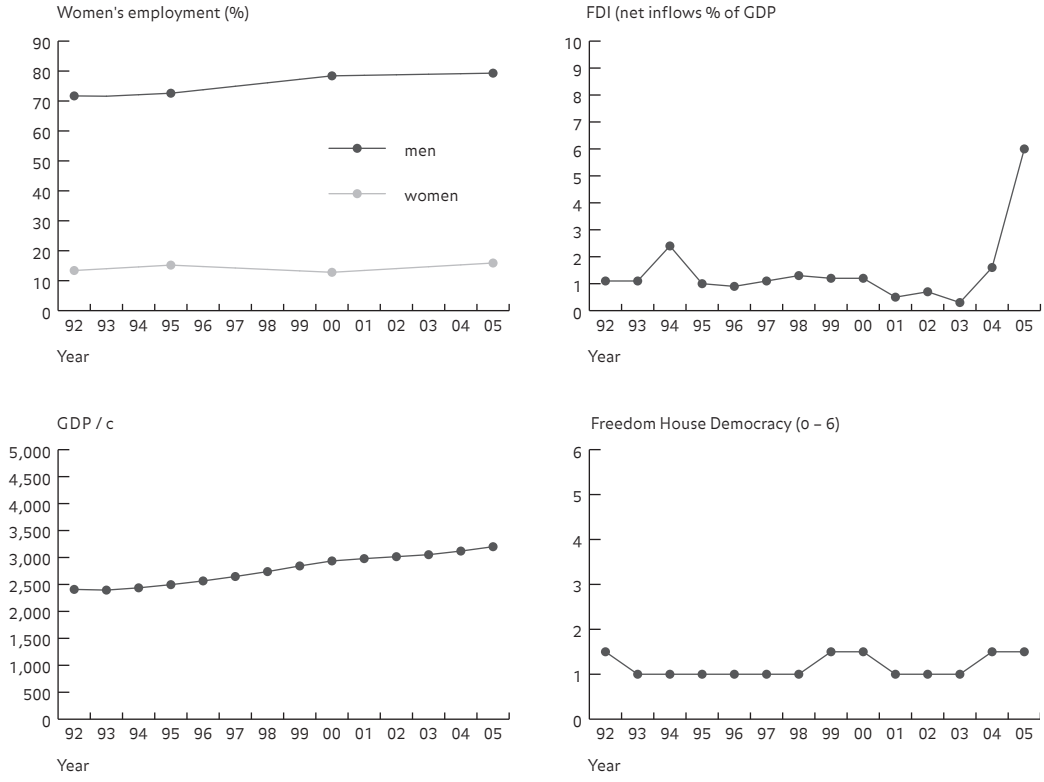
10.4 GLOBAL AND COUNTRY-LEVEL DEVELOPMENTS

In this section I will assess whether globalisation processes can explain the two patterns I have presented earlier: employment declining mainly between 1995 and 2000 (after control for micro-level changes), and the fact that mainly older women left the labour market. Firstly, I will sketch the major developments regarding the above-mentioned disentangled dimensions of globalisation in Egypt. Secondly, statistical models including district-level variables will be presented and then interpreted using the knowledge from the first section.

10.4.1 THE CASE OF EGYPT: ECONOMIC AND POLITICAL REFORM

The period from 1992 to 2005 completely falls within Hosni Mubarak's reign (president from 1981 to 2011). He came to power as the third president of Egypt. Up to then, the country had a controlled economy, although there have been some periods of relative liberalisation (Assaad & Arntz, 2005; Mitchell, 2001; Owen, 2004), and government employment was high, in particular for women (Moghadam, 1998). Politically, Egypt was formally a multiparty system (Esposito & Voll, 1996; Owen, 2004; Yousef, 2004). The Arab-Israeli conflict dominated the international politics when Mubarak became president in 1981. Two wars have been fought with Israel (The Six Days War in 1967, the [4th] Arab-Israeli War or Yom Kippur War in 1973), but there also have been some border conflicts with Libya (1977).

Figure 10.5 Economic and political developments in Egypt 1992–2005



154 These percentages are based on date concerning men included as the partners of the women in the surveys.

155 In Radwan (2002), 46.5% of the labour demand is ascribed to Industry & Petroleum and 19.4% to Tourism and Hotels.

STRUCTURAL ADJUSTMENTS AND OIL PRICES

In the early 1980s, the oil boom in the region stimulated Egypt's economy and supported government expenditures (Yousef, 2004). Many men, especially those working in agriculture, went to work abroad (Jordan, Kuwait, Libya, Saudi Arabia), and many women filled the vacancies in Egypt (Nassar, 2003; Pfeifer & Posusney, 2003). At the end of the 1980s, the economic situation deteriorated, as oil prices collapsed and the international economic environment became more competitive (Assaad & Arntz, 2005; Moghadam, 1998; Yousef, 2004). Unemployment and poverty increased (Assaad, 2003; Moghadam, 1998; Nassar, 2003) and loans were needed to refinance previous commitments. Since 1987, structural reforms, demanded by the IMF in return for loans, were implemented. New shocks led to more reforms (Structural Adjustment Programmes, or SAPs), this time enforced by the WorldBank in 1991 and 1996: from a state-led to a privatised market with a more outward-oriented economy (Assaad, 2003, Assaad & Arntz, 2005; Kienle, 1998; Moghadam, 1998; Nassar, 2003; Pfeiffer & Posusney, 2003; Seddon, 1990; Yousef, 2004), the 1991 SAP being said to be the most ambitious one (Assaad, 2004; Henry & Springborg, 2001). However, the actual degree of privatisation is in doubt.

Volatile oil prices, incomplete reforms, cuts in the government budget, and rapid labour force growth all put severe strain on the economy and prevented it from taking off in the first half of the 1990s (Assaad & Arntz, 2005; Kienle, 1998; Mitchell, 2001; Owen, 2004; Radwan, 2002; Yousef, 2004). Still, even in these years the GDP per capita rose (albeit very slowly). Similarly, my data show that men's non-agricultural employment consistently rose from 71% in 1992 to 79% in 2005 – a pattern highly similar to that of the development in GDP per capita (see Figure 10.5).[154] However, the creation of new jobs hardly benefited women. The public sector defeminised in the 1990s, while other, male-dominated sectors did not feminise. The newly-created public sector positions were filled by men (Assaad, 2004). This defeminisation might be related to two processes. Firstly, the social security system in Egypt allowed civil servants to retire early without loss of pension from the age of 50, or even earlier with some pension reduction (El-Hamidi, 2010), making it easier for women to leave the labour market without much loss of income. Secondly, there was a stream of returning migrants who had worked abroad in oil-producing countries. These countries replaced the foreign labourers with nationals during the oil crisis, while about 10 to 15% of Egypt's work force was made up of migrant workers (Radwan, 2002).

Another drop in oil prices in 1998 was a new blow to the economy (Handoussa, El Sherif, Tawila, Sholkamy & Zaalouk, 2005), but rising numbers of tourists, increasing exports (partly due to tariff cuts in 2003/2004), and growing FDI helped the economy substantially to grow again as of 2003 (Assaad, 2004; Handoussa et.al., 2005), with the GDP per capita then recovering as well (Figure 10.5). It seems that Egypt's economy is becoming to rely more and more on their oil industry and tourism, which account for two thirds of all the new labour demand (Radwan, 2002).[155]

OPPRESSION AND VIOLENCE

As clearly illustrated by the bottom right panel in Figure 10.5, the Egyptian political situation between 1992 and 2005 was one of political authoritarianism, with some minor fluctuations and shifts. In the early 1990s, Mubarak encouraged the opposition to participate in the political process – as a way to secure popular support for Mubarak's economic reforms (Owen, 2004; Yousef, 2004). Simultaneously, he tried to isolate and suppress the radicalised offshoots of the Muslim Brotherhood (Deeb, 2011; Owen, 2004). While all remaining barriers to independent candidates were removed, the government could still constrain electoral campaign activities, and the Muslim Brotherhood was prohibited from running as a party. In these years, tensions rose and this cumulated in political violence, such as the 1992 attacks on tourist sites – symbols of Egypt's corruption by the West (Mitchell, 2001: 237; see also Aziz, 1995: 93). Consequently, tourism sector revenues decreased (Assaad & Arntz, 2005; Moghadam, 1998; Yousef, 2004). Here we see that international norms do not always travel in a positive way; some groups in society might for instance feel threatened by 'Westernisation' (Huntington, 1993: 29; Rizzo, Abdel-Latif & Meyer, 2007).

156 Freedom House bases its scores on expert opinions, and Kienle's can also be considered one such expert opinion, so this does not speak in favour of one of the two assessments. Anyhow, both sources suggest that there were no major changes on the democratisation front.

After the increase in political violence, Mubarak started a general attack on all religious organisations he regarded to be 'terrorists' (Kienle, 1998; Owen, 2004). Kienle (1998) speaks of political deliberalisation in the second half of the 1990s (which seems contradictory to the half-point increase in 1999 found in Figure 10.3),[156] when religio-cultural struggles also intensified (Owen, 2004). Political violence continued and peaked with the 'Luxor Massacre' in which 60 tourists were killed in 1997 (Handoussa et.al., 2005; Kienle, 1998; Mitchell, 2001). In the run up to the 1999 elections the political situation hardly improved (Owen, 2004). It can be argued that the situation has become even worse since (9/11) 2001, and Islamic movements could until recently not operate freely (Jamal, 2006). In 2004 and 2005 new terrorist attacks took place in Egypt (Fergany et.al., 2006).

Recently, the authoritarian system has been challenged successfully during the 'Arab Spring' in which the people, with support of the military, ousted Mubarak. While many foreign and local people fear that the party of the Muslim Brotherhood might hijack the process of democratisation, the Egyptian people have shown a demand for more say in politics and more political freedoms (see Spierings, 2011). This is also in line with the empirical literature showing a widely spread support for a democratic system in Arab countries, including Egypt (Inglehart & Norris, 2003a; Jamal, 2006; Yousef, 2004).

THE ARAB-ISRAELI CONFLICT AND THE GULF WAR

The Arab-Israeli conflict cannot be ignored for the period under study. While Egypt has a peace treaty with Israel, the arms purchases during the 1973 war were a heavy financial burden to Egypt, and loans were needed to refinance obligations that partly stemmed from these purchases (Mitchell, 2001). This need partly contributed to the economic reforms and dependency on the IMF and WorldBank.

During the Iran-Iraq war and the Palestinian Intifada, the Arab states were increasingly united in their aid to Iraq and support for the Palestinians. A major change came with the Iraqi occupation of Kuwait (Mitchell, 2001; Owen, 2004). In the Gulf War, Egypt was the fourth largest supplier of troops against Iraq, and after Saudi Arabia the second of the Arab countries to do so. The Egyptians' involvement obviously damaged Egyptian-Iraqi relations and many Egyptian migrant workers (men) returned from Iraq.

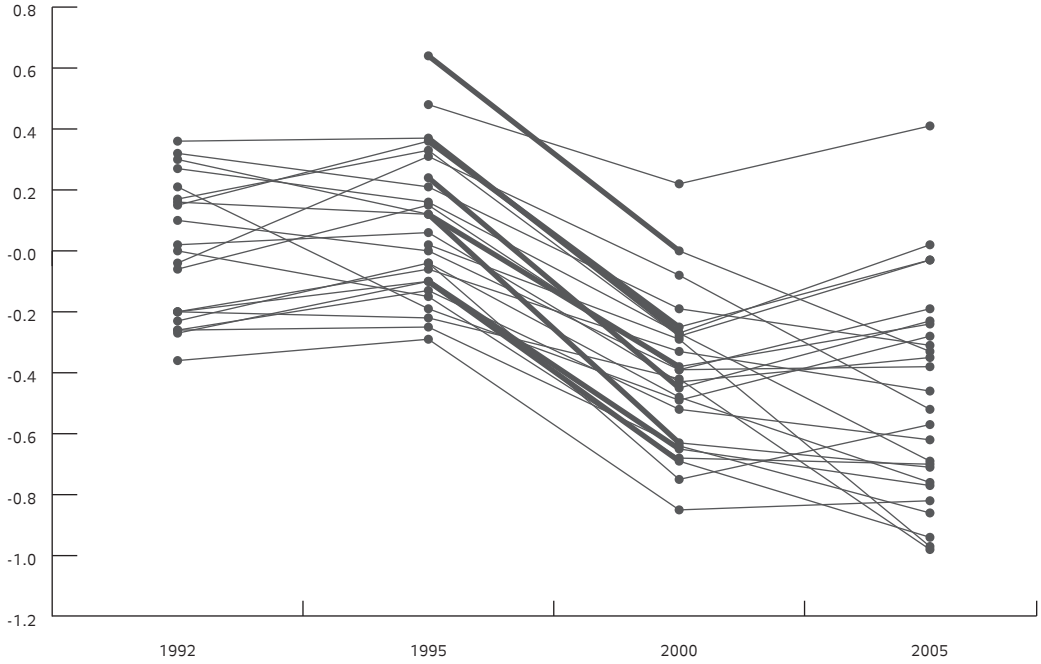
10.4.2 EXPLAINING LONGITUDINAL DEVELOPMENTS IN EGYPT

Above I have sketched the developments in the three theoretically distinguished 'globalisation factors' clusters. Now I can analyse if and how these are reflected in the women's employment developments in my statistical data.

The description of Egypt's recent history above shows no strong changes in international conflict, democratisation, and value transmittance. Consequently, they offer little explanation for the changes in Egyptian women's employment. They might however still be influential and responsible for the relative stability in women's employment. Furthermore, *values* do seem important: the perceived 'threat' of Western values to the Egyptian culture did turn up as a motivation or excuse for violence and domestic terrorist attacks, to which I will return below, where I discuss which processes might explain the changes in women's employment.

The models in Table 10.2 show the differences in the year dummies – the longitudinal trend, in other words – after controlling for the micro-level variables and the different combinations of the district-level variables used in this thesis that are also part of theoretical mechanism of restructuring policies, foreign investments, and norm change through value transmittance. Overall, the results for the district variables should be treated carefully because of the limited number of cases. They nonetheless seem to confirm that a larger service sector creates job opportunities for women (Models 2, 4 and 5), and that wealth at the district level is associated with lower employment levels after control for the micro-level factors (see Chapter 6).[157] With respect to changes over time, the results are roughly similar to the ones after control for the individual factors (Model 1): women's employment opportunities seem to decrease, with the major drop found between 1995 and 2000.[158] Below, these results are linked to the economic, political and cultural developments described above.

Figure 10.6 Tourist governorates



157 In a model without the micro-level factors, no effect was found for the district-level wealth factor (0.072 with a s.e. of 0.192). This is in line with the results in Chapter 6 that suggest a welfare effect: taking an increased labour demand, value change and educational opportunities into account, women in wealthier areas might have less need to enter the labour market.

158 In Appendix 10.1 (first and second model) the coefficients of the year dummies are given for models similar to those in Table 10.2, Models 1 and 5, but then estimated using weighted IGLS procedures. These basically show the same patterns as described in this section, but the coefficient are generally somewhat smaller.

159 It should be noted, however, that it is possible that the returning men were not captured in the male labour supply variable. If these men found jobs (for instance by pushing women out of the labour market), they do not count towards a higher surplus in labour, which is measured here. Moreover, men who diverted to the agricultural sector are not considered male labour supply in this variable either.

160 In other years, such as 1986 and 1993, tourist establishments were also victim of violence (see Aziz, 1995), but as the 1997 event was so extreme and enjoyed such major media coverage it can thus be considered to have had a far larger impact.

Zooming in on the political (de)liberalisation processes and the international conflicts Egypt was involved in directs attention to the possible influence of internal and external political violence on the demand for, and supply of, women's labour; not because of the theoretically expected replacement of men going to the front, but because of the effects on the tourism sector. Regarding the former, the Gulf War (1990–1991) led to the return of migrant workers, which can be expected to have harmed women's employment. The negative effect found by the time dummies could indeed be the lagged effect of returning migrant workers, who constituted 10% to 15% of the labour force. On the other hand, a time lag of about 5 years for a labour supply shock seems unlikely. Furthermore, in Model 3 (Table 10.2) this labour supply effect is not found: no negative coefficient of the male labour supply variable was found and the gap between the year dummies did not decrease in strength after its inclusion.[159]

Regarding internal violence, it is said to have mainly affected the tourism industry (an important employer for women – see also Section 9.7.2). As the Luxor massacre took place in 1997, the main blow can be expected to be found in the data between 1995 and 2000.[160] This also seems to be in line with the statistical results. First of all, Table 10.2 shows the service-sector district variable to be one of the few statistically significant explanatory variables for the Egyptian districts. Indeed, in districts with more service sector jobs, more women are employed and including this variable does partly explain the drop in 2000: the coefficient decreases by 24%. However, this decrease is not significant, so not too much explanatory significance should be attached to this finding, also because this variable measures all white-collar jobs, not just tourism. Another indication that the drop in tourism affected women is provided by the descriptives of the service sector variables used here. In 1992, 44% of the people had a white-collar job, in 1995 this was 53%, but in 2000 and 2005 this dropped to 49–50%; but as I have just said, it is questionable whether this variable taps into the tourism sector well enough to translate these results directly. However, tourism figures from the World Development Indicators that are available from 1995 through 2005 (and beyond) seem to support this reasoning. The number of inbound tourists as well as revenues from tourism show a general upward trend, but between 1997 and 1998 both figures decreased substantially: 12% in number of tourists (and from 1996 to 1997 the number hardly rose either) and 27% in revenues (WDI). A closer look at Figure 10.6 is also helpful. Here, the touristic governorates show a relatively steep decline in women's employment over the period 1995–2000 (e.g. Aziz, 1995). In Figure 10.6, these governorates are indicated by the thicker lines: Alexandria, Aswan, Cairo, Giza, New Valley, Qena (including Luxor – Qena was officially split into two governorates in 2009), Red Sea (incl. Hurghada), and South Sinai (incl. Sharm el Sheikh). These governorates account for 8 of the 11 areas with a relatively strong employment decline between 1995 and 2000. In sum, internal violence seems to have hurt women's employment, mainly because it reduced tourism, which is a relatively important sector for women's employment.

The return of workers due to the Gulf War has already been discarded as being a major influence in Egypt, but this does not cancel out a possible influence of the return of a specific group of migrant workers: the men active in the petrol industry. As oil-producing countries switched from migrant workers to nationals, this should have led to a larger labour supply on the Egyptian home labour market. The oil price mainly dropped between 1998 and 1999. If migrants returned home then this is most likely to be reflected in either the difference between 1995 and 2000 or between 2000 and 2005. The drop in oil prices thus partly coincides with the crisis in tourism and the effects are hard to disentangle. However, tourism can still be expected to be the most important of the two, because it is a sector more important for women's employment. Compared to touristic sectors all over the world, the Egyptian one might not be the most feminised (Assaad, 2004), but after public service it is the largest non-agricultural employment sector for Egyptian women, accounting for about 15% of all non-agricultural employment in urban areas and 30% in rural areas (WorldBank, 2010: 12). The migrants returning from oil countries would mainly have been blue-collar labourers, people working in the masculine petrol industry (Ross, 2008). It is thus far more unlikely that these returning migrants pushed women out of the labour market in large numbers.

Generally, these results suggest that changes or shocks to the labour market can be important for women's employment, but only if it concerns parts of the labour market that have

Table 10.2 Temporal trends in women's employment in Egypt 1992–2005 controlled for micro and district-level characteristics

	Model 1 Micro-level only		Model 2 (1) + service sector	
Year dummies				
1992	ref		ref	
1995	0.026	0.171	0.154	0.262
2000	-0.432 **	0.165	-0.327	0.207
2005	-0.517 **	0.166	-0.499 *	0.248
District-level factors				
Economic development: Wealth level				
Male labour supply: Male non-employment				
Labour market structure: Share white collar			0.547 **	0.195
Labour market structure: Share skilled labour				
Degree of urbanisation				
Norms: Women in public sphere				
Norms: Traditional care roles				
Model statistics				
Intercept	-10.388 ***	0.388	-10.524 ***	0.142
Household-level variance	0.121 ***	0.012	0.064 ***	0.013
District/Time-level variance	0.008	0.004	0.085 **	0.033
District-level variance	0.110 **	0.038	0.020	0.026
Time-level variance	0.029	0.072	0.051	0.149

* p<0.05 ** p<0.01 *** p<0.001; N_i = 55,419; N_h = 47,957; N_{dt} = 99; N_d =26; N_t = 4; Notes: all models are controlled for the micro-level factors given in Table 10.1 and the overall control variable age and its quadratic term. Models are based on MCMC estimation, starting from IGLS models weighted for in-country representativeness. Sources: DHS Egypt 1992, 1995, 2000, 2005 women's and household survey, retrieved from the DDW.

Model 3 (1) + male labour supply		Model 4 (1) + all economic factors		Model 5 (1) + all district factors	
ref		ref		ref	
0.050	0.19	0.020	0.249	-0.213	0.239
-0.505	0.261	-0.494	0.400	-0.653 **	0.234
-0.611 **	0.230	-0.344	0.254	-0.683 *	0.278
		-1.884 *	0.816	-1.055	0.361
1.082	1.886	-1.835	4.140	0.127	1.964
		2.063 **	0.673	0.890 **	0.315
		0.227	0.839	0.596	0.493
		-0.401 *	0.188	-0.363	0.254
				-0.767	0.914
				-0.324	0.945
-10.403 ***	0.372	-10.179 ***	0.399	-9.689 ***	0.415
0.045 ***	0.012	0.092 ***	0.012	0.146 ***	0.015
0.009	0.005	0.049	0.036	0.012	0.007
0.109	0.036	0.041	0.038	0.093 **	0.034
0.047	0.106	0.067	0.221	0.077	0.211

161 The touristic governorates Alexandria and Cairo also have relatively masculine public sectors, compared to the other 'urban governorates' and the same goes for Red Sea and South Sinai of the 'frontier governorates'. Only two governorates have less feminised public sectors within their larger region and show no 'rapid decline'.

the potential to offer women opportunities to find gainful non-agricultural employment, not if it are the male-dominated (or almost exclusively male) sectors. The more general steady rise of the country's GDP per capita was also hardly reflected in a steady increase in women's employment figures (though it was reflected in men's employment). It is possible, however, that there is a kind of 4 to 5–year lag effect. Then the economical development at the end of the 90s only translated to more jobs for women (or a weaker decrease) in the early 2000s. Similarly, the slower economic growth in the early 90s might account for the employment malaise in the late 1990s. However, this seems unlikely when the data for 1988–1990 are also studied.

Foreign investment, as shown in Figure 10.3, also hardly seems to relate to women's employment, and this resonates with the observations of, for instance, Assaad (2004), who claimed that newly created jobs (here I assume that FDI creates jobs) mainly benefited men because of labour market defeminisation (see also Radwan, 2002: 8). The more general declining trend after control for economic and norm factors (Model 5, Table 10.2) might be attributed to the constant economic reforms in Egypt. If the liberalisation discourse, of which FDI is an important part, has had little observable effect, this mainly leaves the SAPs' privatisation track.

SAPs are said to be specifically harmful for women because they decrease women's job opportunities. The restructuring process was constantly going on in the period under research, and after control for the individual factors we see a continuous downward trend in women's employment. This is a first indication of this relationship, but not the only one. With the most ambitious plan starting in 1991, it is not surprising that the effects are strongest a few years after the start of its policy implementation: between 1995 and 2000. Part of this effect is probably captured by the service-sector or white-collar variable in Table 10.2 (which shows the expected positive effect and partly explains the negative trend). However, public sector employment in itself is not included. At the national level, using the labour force surveys of 1988 and 1998 of Egypt, both Assaad (2004) and Radwan (2004) show that the labour market share of employment in state-owned companies decreased (while government employment increased but defeminised). The latter author also shows this to be an absolute decrease, from 13.5 million people in 1988 to 10.4 million in 1998 (Radwan, 2002); and the public sector is the single-most important non-agricultural employer of women (WDI). Moreover, the cohort analysis (shown in Figure 10.4) may also provide some additional support to this explanation. When the public sector is downsized and women are fired, it would not be surprising that this mainly affects the older women because they are most expensive. Next to that, the early retirement scheme in the government sector also stimulates older women to leave the labour market. El-Hamidi (2010: 98) concludes that, in particular, higher-educated women have high early-retirement probabilities, and higher-educated women are exactly the ones the government employs. The scheme was most interesting for women of 50 or older in the early 2000s, but given the possibility to opt out even earlier, women who were in their 30s in 1992, could have been up to 47 years old in 2000, and might also have chosen to leave the labour market between 1995 and 2000. At the district level, the three non-touristic governorates with strong declines are all governorates with relatively masculine public sectors compared to the other governorates in the larger region (Lower Egypt: Behera & Menoufia; Upper Egypt: Fayoum) (Vigilante & Allam, 2003).[161] This seems rather surprising, because fewer women can be fired there. On the other hand, it might also indicate a more complex dynamic, whereby a sector that is relatively masculine still employs many women, so that downsizing hurts women relatively more there than in 'double feminised sectors'. However, this is rather speculative: while the idea springs from the results of my study, it does not fully support it. Nevertheless, it seems rather safe to conclude that the SAPs did indeed harm women's employment.

10.4.3 GLOBALISATION AND WOMEN'S EMPLOYMENT DECLINE

Based on the framework applied in this thesis, I have disentangled different processes related to globalisation, and studied what the dynamics are between these processes and the sub-national and micro-level differences. Doing so helps to explain why women's employment did not consistently rise between 1992 and 2005, and it shows which important aspects of globalisation have negative effects on women's employment, at least in the medium term, and how these

162 Of the entire collection of globalisation factors, others, such as FDI and the degree of democracy, were not found to be influential. This is in line with the results from Chapter 6.

manifest themselves. In that respect, differences in employment developments between the governorates are explained. Particularly (a) internal violence – partly framed as a response to Westernisation (e.g. Aziz, 1995) – affecting the tourism sector and (b) international economic politics (in the form of privatisation resulting in a smaller government sector) help to understand the pattern in women's employment found in Egypt. The privatisation result echoes other studies on Egypt (Moghadam, 1998; Nassar, 2003; Pyle & Ward, 2003; Posusney & Doumato, 2003), but in this study I have been able to filter out all kinds of micro- and district-level effects.[162]

10.5 THEORISING CHANGING MICRO-LEVEL EFFECTS OVER TIME

As discussed in Chapter 2, not only is women's employment embedded in women's contexts, of which the global context is one, but the relationships between influencing factors and women's employment are also embedded in this context. As this context changes over time, effects might thus change over time. This is the second explanation this thesis offers for the discrepancy between the literature's and previous chapters' expected increase in women's employment and the registered decline found at the start of this chapter.

10.5.1 STATE OF THE ART

That the effect of micro-level factors might change over time seems intuitively correct and it logically follows this thesis' framework; however, a review of the literature on micro-level studies of women's employment in Muslim countries suggests otherwise. The dominant way of presenting statistical results involves reporting exact figures, and by doing so the implicit message is that effects are constant or stable. For example, Winckler talks about a "substantial growth in the female labour force participation rates, due mainly to the sharp improvement in [Arab] women's educational level" (2002: 621). From this it is easy to conclude that if we make sure all Arab women are educated, they will all enter the labour market. More explicitly, Aromolaran in his study of Nigeria, states: "Specifically, an additional year of postsecondary education increases labour market participation probability by 15.2% in the wage sector" (2004: 37). No restriction is made, and this number is presented unconditionally, as if it is a universal and timeless effect. More promising is the work of Başlevent & Onaran (2004), who statistically test for different effects of age, education and having children in Turkey in 1988 and 1994; however, they do not discuss the differences they found between the two data sets. These are just some examples, but assessing the literature on women's employment in Muslim countries as a whole, I have to conclude that systematic studies of how (not even why) effects might change over time are almost completely lacking.

10.5.2 HYPOTHESISING CHANGING EFFECTS

Because contextual factors change over time and micro-level relationships are embedded in these contexts, it is logical that micro-level effects are also subject to change over time. This might partly explain why women's employment has not risen despite the positive micro-level developments, such as rising education levels, discussed at the start of the chapter. Based on the theory and results discussed in the previous chapters, several specific expectations can be formulated.

With regard to the traditional values held by women and other household members, it may be expected that these become less important when a country as a whole is slowly modernising in terms of cultural values. However, I believe this to be highly unlikely; I expect that even though the more modern families as well as the moderate households become somewhat more modern, the most traditional will stay rather traditional. The values become less important for some groups but not for all. Consequently, the gap between traditional and modern households can be expected to widen and the effect of the value variables to increase. Moreover, we can learn from Chapter 8 that if women's roles loosen a bit, this mainly affects women who do not live in a household with high care needs. Consequently, the gap between women in households with higher and lower care needs can be expected to widen, and for instance the effect of heaving children to increase. Simultaneously, the role of economic needs can become more influential because women are also slowly becoming associated with some economic role, and

163 These numbers are based on the total sample for Egypt 1992–2005 and are thus calculated for the same group of people.

164 The final interaction model is also estimated using weighted IGLS. The results for education and the presence of a male breadwinner show similar trends. The trend for having young children also points in the same direction but somewhat weaker than in the MCMC model.

if there is an economic need women now have more room to act on it. This results in stronger effects of economic needs variables, because more women with economic needs will enter the labour market.

Regarding education, the strongest effect found in Chapter 7 is that education's effect decreases when more jobs are created for women, but this only happens in a context where there are fewer educated people than service sector jobs. For the specific case of Egypt and its high education levels, this context is completely different. In 2005, Egypt's supply of people who at least completed secondary education (about 43%) greatly outnumbered the number of service sector jobs (30%).[163] In this case, the creation of jobs might lead to a particular advantage for secondary-educated women. Higher-educated women already have jobs and the lower-educated ones will not be hired since there is still a supply of secondary-educated women. In other words, if the job opportunities in the public sector decrease this might lead to a diminishing effect of women's (secondary) education, because fewer people with secondary education will be able to find jobs.

These specific expectations derived from Chapters 7 and 8 can also be captured in two more general expectations. I expect that (a) important factors that have a positive influence on women's employment and become more present decrease in strength, and (b) factors that have a negative effect and are in retreat increase in strength. Thus, if the positively influencing factors are in decline the effect of that factor increases in strength, and if the negatively influencing effect is on the rise the strength of the effect decreases.

10.6 MODELLING CHANGING EFFECTS

In this Section, I will first explain how I have tested for changing effects over time, and subsequently discuss the results and their implications.

10.6.1 FINDING TRENDS

When estimating multilevel models it is relatively easy to include variables in the random part of the model in order to test whether coefficients differ by higher-level unit. In this chapter the year of the survey serves as that higher-level unit. I re-estimated the model from Table 10.2 with all micro and district-level variables and the time dummies (Model 5), but now with interaction terms for all micro-level factors with three year dummies (1995, 2000, and 2005). Since in this chapter, I am interested in the question whether effects really change over time, I do not want to rely on one 'hiccup' (with the risk of type 1 errors – false positives). Relying on just one difference between four years would make it relatively easy to corroborate the general claim that effects differ, but such a finding might be mere coincidence instead of a pattern and tells us little in substantial terms. In that light, and for reasons of comprehensibility, I have only included the interactions terms for the micro-level variables that showed a relatively clear indication of an upward or downward trend in the coefficient, including some statistically significant differences in the coefficients.[164]

10.6.2 STABILITY AND CHANGE

Table 10.3 shows which effects have clearly changed over time and might explain the unexpected decline in employment. If the interactions with the year dummies have been retained in the model, the coefficients for each of the four years are presented separately in the four columns at the right. There it is also indicated whether and how coefficients significantly differ from each other ($p<0.05$). Of the eleven micro-level variables, three did show a (possible) trend of weakening or strengthening effects between 1992 and 2005, including the single most influential factor, education. Most notable is that for none of the four value-related variables (partner's education, traditional household structure, age difference, age at birth of first child) an effect was found, despite the possible mechanisms suggested above. Effects were found for the presence of children and male breadwinners, and for education. The paragraphs below will address these effects in greater detail.

Firstly, over the years, having young children turns out to influence women's employment negatively in Egypt.[165] Additionally, the effect seems to increase over time: the negative

Table 10.3 Different effects on women's employment of micro-level factors in four years in Egypt variable

Variable	Main coefficients		Interaction-based coefficients[1]			
	Log odds	s.e.	1992 (#)	1995 ($)	2000 (&)	2005 (+)
Micro level						
Children (ref = no children)						
1or 2, older than 5	-0.036	0.047				
3 or 4, older than 5	0.007	0.063				
5 or more, older than 5	-0.247	0.352				
1 or 2, at least 1 younger than 6			-0.294 ** +	-0.129 &+	-0.382 $	-0.504 #$
3 or 4, at least 1 younger than 6			-0.065 +	-0.116 +	-0.315	-0.491 #$
5 or more, at least 1 younger than 6			-0.057	-0.204	-0.390	-0.178
Partner present (ref = no partner)	-0.724 ***	0.054				
Presence male breadwinner (ref = no)			-0.594 *** $+	-0.336 #	-0.416	-0.078 #$&
Education (ref = less than primary completed)						
primary completed, secondary not	0.205 ***	0.061				
secondary completed, no tertiary			2.925 *** &+	2.893 &+	2.479 #$+	1.773 #$&
at least some tertiary			3.247 *** +	3.458 +	3.419 +	2.924 #$&
Living in a city (ref = no)	0.164 ***	0.038				
Partner's occupation (ref = blue collar)						
Agriculture	-0.589 ***	0.069				
Lower white collar	0.076	0.054				
Upper white collar	0.390 ***	0.044				
Unemployed	0.341 **	0.106				
Values a: Age woman at birth first child	0.053 ***	0.005				
Values b: Age difference (partner – woman)	-0.020 ***	0.003				
Values c: Partner's education (ref = less than primary)						
primary completed, secondary not	-0.085	0.060				
secondary completed, no tertiary	-0.028	0.060				
at least some tertiary	-0.137	0.075				
Values d: Traditional household structure	-0.312 ***	0.038				
Age	0.380 ***	0.005				
Age^2	-0.005 ***	0.000				
District level						
Economic development: Wealth level	-0.509	0.572				
Male labour supply: Male non-employment	-0.264	2.532				
Labour market structure: Share white collar	0.522	0.589				
Labour market structure: Share skilled labour	0.468	0.506				
Degree of urbanisation	-0.140	0.404				
Norms: Women in public sphere	-0.024	1.100				
Norms: Traditional care roles	1.497	0.808				
Year dummies						
1992	ref					
1995	-0.328	0.340				
2000	-1.330 **	0.460				
2005	-0.747	0.540				

Table 10.3 Continued

Variable	Main coefficients		Interaction-based coefficients[1]			
	Log odds	s.e.	1992 (#)	1995 ($)	2000 (&)	2005 (+)
Model statistics						
Intercept	-9.908 ***	0.367				
Household-level variance	0.098 ***	0.015				
District/Time-level variance	0.011	0.007				
District-level variance	0.122 *	0.053				
Time-level variance	0.618	1.534				

* p<0.05 ** p<0.01 *** p<0.001; N_i = 55,419; N_h = 47,957; N_{dt} = 99; Nd =26; N_t = 4; Models are based on MCMC estimation, starting from IGLS models weighted for in-country representativeness (see Chapter 4); Sources: DHS Egypt 1992, 1995, 2000, 2005 women's and household survey, retrieved from the DDW. Notes: (1) In these columns the coefficients are presented for the variables that showed some indications of a trend. Based on the interaction terms the coefficient for each was calculated. Whether it significantly differs (p<0.05) from the coefficients in other years is designated as follows: # differs from 1992; $ differs from 1995; & differs from 2000; + differs from 2005; for the year 1992 it is also indicated whether the effect differs significantly from 0.

165 The somewhat anomalous results for having 5 or more young children can be attributed to the low number of women that fall within this category.

166 At the beginning of the chapter it was shown that all four indicators of women's and household members' values show a trend away from traditionalism.

167 The data on Egypt only include women who were still or once married. Therefore the partner dummy measures the difference between currently married women and compares them to widows and divorced women.

coefficients of having 1 to 4 children grow steadily between 1992/1995 on the one hand and 2005 on the other, and this increase in strength seems statistically significant overall. No such effect was found for the number and presence of older children. This strengthening effect of having younger children supports the reasoning that slightly loosening care roles might mainly benefit women with fewer care responsibilities. The care responsibilities can be expected to be particularly high for women with young children, and consequently a shift towards somewhat less traditional care roles would lead to a larger gap between women with younger children and other women.[166]

Secondly, the results for the presence of a male breadwinner suggest a declining influence of this factor in Egypt. In 1995 and 2000 the effect is somewhat weaker than in 1992 (for 1995 the difference is statistically significant) and for 2005 it is weaker than in all other years and has almost disappeared. Thus while having a (living) partner remains an important inhibiting influence on employment[167] (probably due to the lack of an economic need for women to enter the labour market), it has become less relevant whether the household head is a working-age man. It seems that with the shift away from the extended-family model (as indicated in Table 10.1), economic needs are no longer as much determined by adult male members of the extended family who are not the woman's partner.

The third and last factor for which a possible trend was found in Egypt is higher education. For secondary education a clearly declining trend is found: its effect weakens over the years and the results are significant. For tertiary education, 2005 mainly stands out. So there is a weakening effect of tertiary education over the years but it is not linear. The results seem to resonate with the expectations formulated in Section 10.5.2. Because the number of service sector jobs is higher than the number of tertiary-educated people, but not higher than the number of secondary-educated people, the decline and/or defeminisation of the public sector can be expected especially to harm secondary-educated women because they are the least preferred of the people needed to fill these vacancies (for which secondary- and tertiary-educated men and women are mainly hired). As Radwan (2002: 4) signals, the labour demand for people with intermediate (secondary) education has especially become rather low compared to the supply. That also the effect of tertiary education drops in 2005 might indicate that the effect is spreading towards that group, assuming that the public sector hardly hires secondary-educated women any longer, and now it is tertiary-educated women's turn. These results are also in line with the 'qualification inflation'-effect found in Western countries, whereby an increase in the number of degrees leads to a declining value of the degree and thus to lower returns (e.g. Dolton & Silles, 2008; Green, McIntosh & Vignoles, 1999).

Of the three trends found, two are clearly in line with the general expectations formulated at the end of the previous section; the results for male breadwinners is less clear because the number of households with a male breadwinner was rather stable over these years. It seems that positive influences have diminishing returns when the influence itself becomes more prevalent. Also, factors that have a negative influence and are in decline show an increasing influence, indicating that the gap between the most obstructed groups and the others increase: large parts of society move ahead, but some groups remain were they are.

10.7 CONCLUSIONS

Based on scientific and commonly held beliefs and on rising education levels, decreasing fertility, and ever-increasing globalisation, we would not have expected a decline in women's employment in Egypt in the period from 1992 to 2005. The framework used in this thesis points towards multilevel complexity and interrelatedness to understand this discrepancy between expectations and empirical reality. These mechanisms have been substantiated in this chapter by focussing on globalisation and changing micro-level effects, and the dynamics between different factors helps to understand why women's employment did not rise constantly.

10.7.1 GLOBAL INFLUENCES

Two international developments or incidents did help to explain the decline in women's employment. The perceived threat of 'Western norms' contributed to political violence directed

at tourists, and – regardless of the source of the tourist attacks – this violence did damage women's employment by a decreasing stream of international tourists. This was most visible in the tourism governorates home to the resorts Hurghada and Sharm el Sheikh, the ancient city Aswan, the Sphinx, the Valley of Kings and the Valley of Queens, the Great Pyramid of Giza, and the major spas. Similarly, internationally prescribed economic reforms that resulted in a shrinking or defeminising public sector have hurt women's employment over the years. Both these effects support one overall idea: whether and how international or global processes influence women's employment depends on the structure of the local labour market, in particular with respect to the vertical gender segregation.

Regarding labour market structures, it can have several reasons why no effect was found of the public sector size in Chapter 6. The most plausible is the measurement used there: government expenditures. An additional possibility, suggested by the analyses in this chapter, is that the effect of the public sector size differs considerably by district, depending on the extent to which certain sectors are feminised in that district (e.g. tourism, public sector, light manufacturing). The value pattern underlying the opportunities can be more context specific than often assumed. For instance, manufacturing jobs might not be considered suitable everywhere (cf. Moghadam, 2003: 49). Consequently, the effects of IMF and WorldBank programs or economic shocks (oil, war) depend on which sectors they influence and how the labour market is segregated.

For several global and international processes no clear effect was found here, and these results seem to complement the analyses in Chapter 6. FDI and general economic development do not seem to create an overall demand for labour nor more opportunities for women. Related to this, the return of oil migrants does not seem to have hurt women's employment much. A positive effect of gender equality norms was not found either, but the cultural invasion by the West (of which gender equality is often a token issue) did seem to play its part in legitimising or provoking the internal violence and tourism. The influence of war could not be tested, but did seem to be one of the causes of the needs for loans and thus restructuring. Lastly, finding no effect of democratisation might indicate that is not very important for women's absolute employment (the focus of this thesis), but more for women's relative employment as argued by Spierings, Smits & Verloo (2009).

Overall, globalisation is clearly a multidimensional, complex phenomenon with multiple and contradictory dynamics (Bergeron, 2001; Moghadam, 2007; Pyle & ward, 2003; see also the Egypt Human Development Report, 2000/2001). Especially when global-level processes interact with local labour markets does it seem likely that global factors affect women's employment; and while these might be considered side effects of other processes, their impact can be strongly negative. This means that it is not only harder for women to find jobs, but women seem to lose their jobs as well. Even though the long-term effects of a process such as globalisation might benefit women (not tested here), the medium-term dynamics can be detrimental to certain groups of women and their families – from their perspective the short or medium term might cover their entire life.

10.7.2 CHANGING RETURNS

After the multifaceted influence of globalisation, the second explanation for the discrepancy diagnosed at the start of this chapter is made up of the changing effects of education, having young children, and the presence of a working-age male household head. This further substantiates conclusions drawn in Chapters 7 and 8 about the context dependency of micro-level factors.

From a longitudinal perspective, especially the declining effect of education helps to understand that women's employment did not rise unambiguously. With both the relative number of secondary- and tertiary-educated women doubling in 13 years, it could have been expected that women's employment would rise as well. In 1992, 60% of the tertiary-educated women were employed and 43% of the secondary-educated women. Based on these probabilities, the employment rate of women – assuming stable returns – should have been more than 22%, not the found 16%.

168 This effect seems to agree with the effects for the presence of adult male household members found in Chapter 8, which were stronger in the Greater Middle East than in Sub-Saharan Africa and Southeast Asia, the extended-family model being strongest in the first. However, it does not seem to correspond with the result for Central Asia in that chapter.

The analysis in this chapter has drawn explicit attention to the fact that effects do change over time, and the results seem to support the expectation that positive influences that become more prevalent (e.g. education) lose strength, whereas negative influences that lose ground (e.g. having many children) become stronger in effect. In other words, this means that the effects of factors such as education and fertility decline are no panacea for women's employment, because the positive effect on women's employment will decrease. To put it more strongly, there seems to be a backfiring dynamic whereby stimulating the micro-level factors that increase employment in the end minimise the power of these factors; the law of diminishing returns.

Furthermore, the effects found resonate with previous results. The declining positive effect of education seems to be in line with the reasoning that the effect of education depends on the balance between (public) service-sector jobs and the number of higher-educated people (women and men) available. The over-education of the Egyptian people leads to a lower value of the education, which has also been found for labour markets in developed economies (see Dolton & Silles, 2008; Green, McIntosch & Vignoles, 1999). The growing difference between women with and without young children, and the changing values as noted at the start of this chapter both fit the reasoning that moving away from traditionalism mainly benefits women without strong care duties. Lastly, the disappearing negative effect of the presence of a working-age male household head might be ascribed to a waning importance of the extended household, in which case only the presence of a male partner is important, and not so much that of other adult men.[168]

In this chapter, the emphasis has been on testing from a longitudinal perspective, whether there are changing effects. However, as Beck nicely phrased it methodologically: "Time is not a theoretical variable." (2010: 293). The next step would therefore be to study why effects have changed in more detail.

10.7.3 GENERALISATION

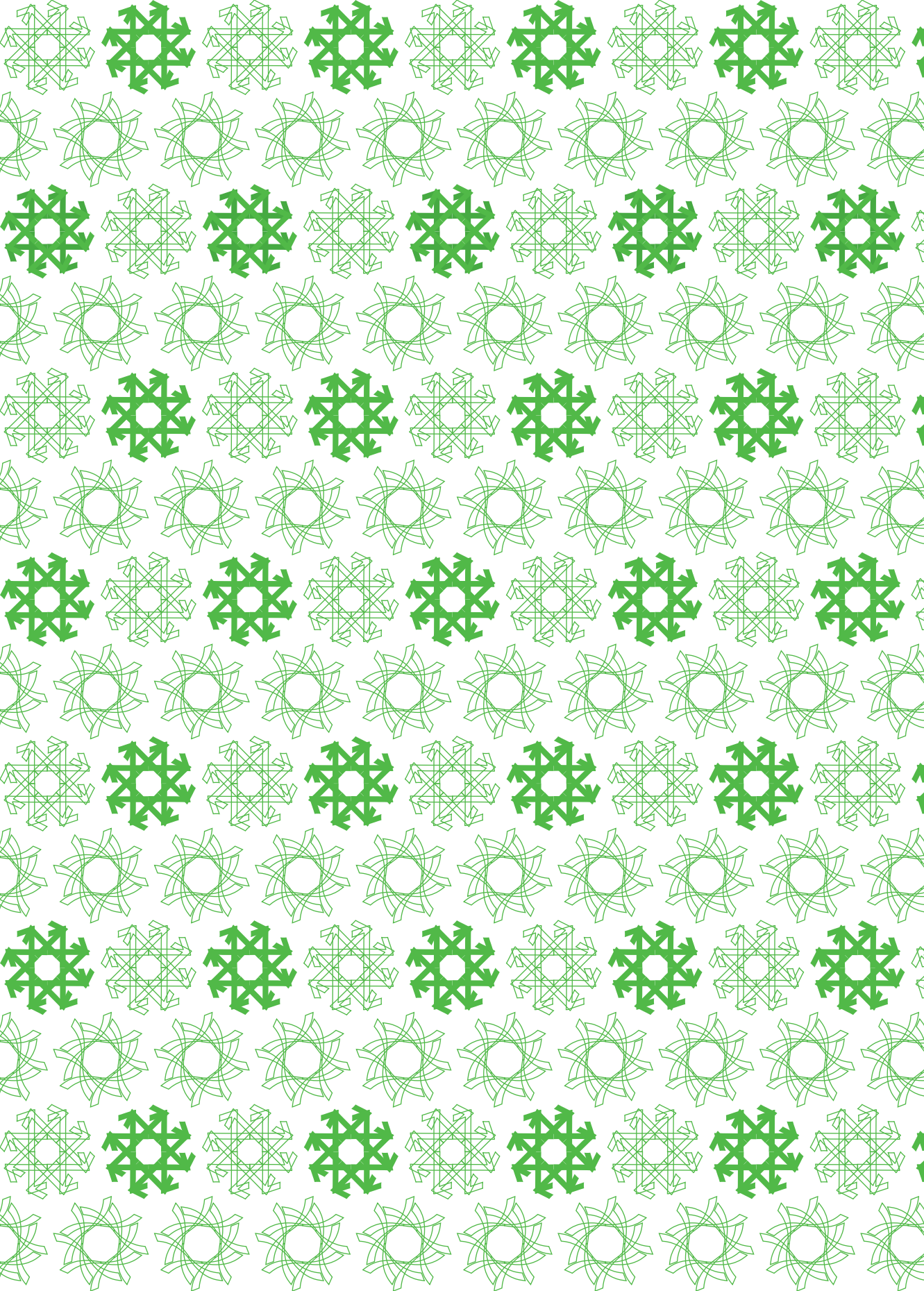
To pick up where the last section ended, the general conclusion seems to be that the developments in women's employment are not part of a simple linear process but of a more complex system of non-linearity (see Walby, 2009). Earlier, when no strong increase in women's employment was found for the MENA, it was often attributed to traditional norms that prevent women's participation in paid work outside the home (see Assaad, 2004). The case of Egypt has shown that while reality is indeed more complex, it can nevertheless be understood. Moreover, these results seem to be generalisable, at least partly. If the "myth of rising female employment in Muslim countries" (cf. Hakim, 1995; Assaad, 2004) refers to deterministically formulated expectations, the case of Egypt – and the numbers presented in Figure 10.1 – would contradict such ideas about globalisation or rising education. Interesting in Figure 10.1 is that three of the five countries show a downward trend in the second half of the 1990s and early 2000s. Of the five, these three are also the most touristic countries: they rank 19th (Jordan), 51st (Egypt), and 80th (Indonesia) on the tourism revenues as part of the GDP, while Bangladesh and Nigeria rank 154th and 153rd respectively (Nationmaster, 2011); and violent attacks on tourists took place also in Jordan and Indonesia: the Millennium attack plots in 2000 that targeted U.S. and Israeli tourists in Jordan, and the 2002 Bali bombings which killed 202 people and were seen as retaliation against the U.S. war on terror. Both these events fall within the period of decline given in Figure 10.1 and seem to be reactions to either Westernisation or neo-colonialism.

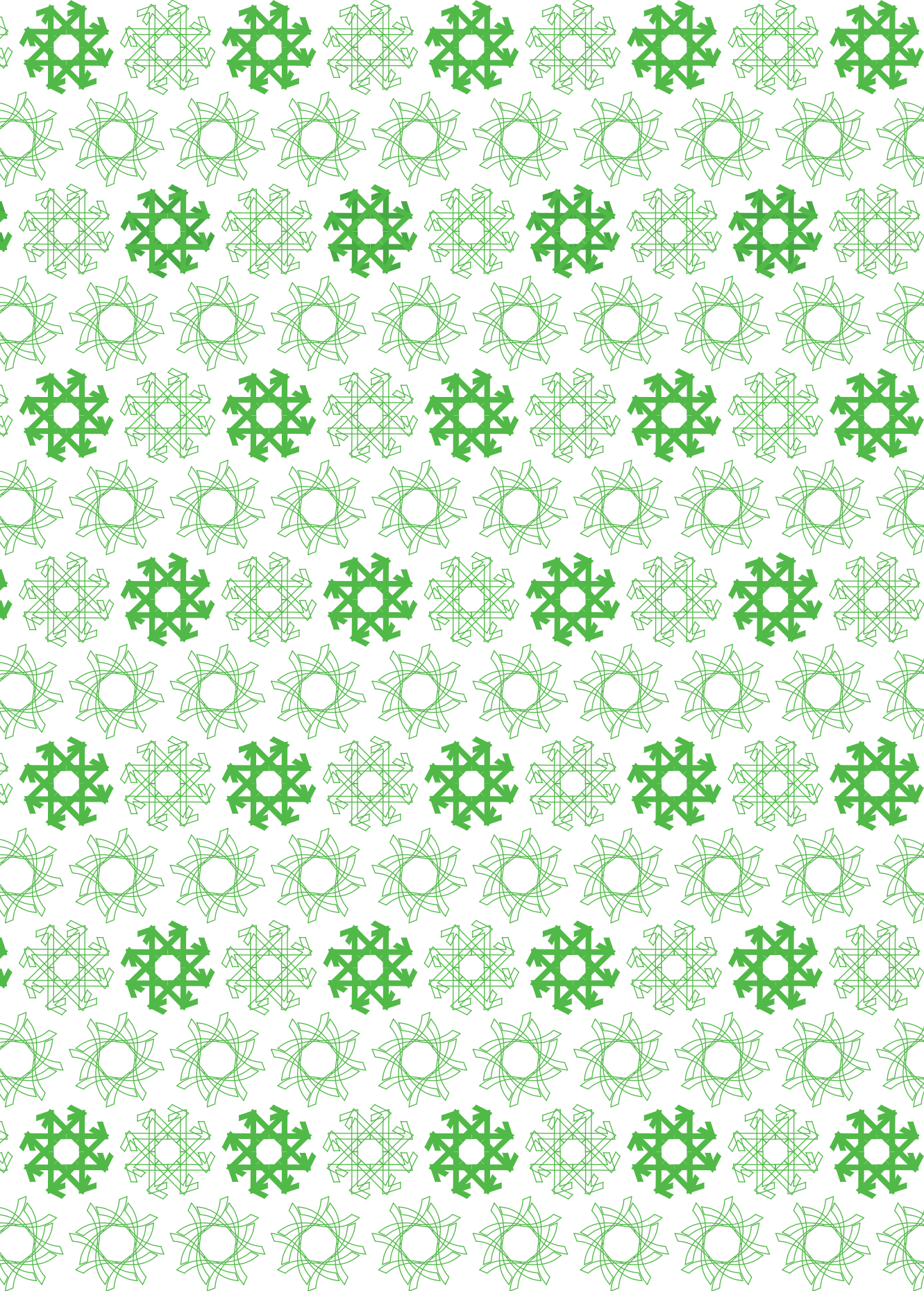
Regarding the generalisability of the more specific results found for Egypt in this chapter, it can definitely be argued that Egypt is an extreme case (Gerring, 2007: 101–5) with regard to the role of the public or government sector. Public sector employment was high and graduates (secondary and tertiary) had a public job guarantee (Assaad, 2003: 120, 140 fn 1). Because this sector was so large (and feminised) it is not surprising that privatisation has had a large impact in this country. In countries where this sector is smaller or less feminised it can be expected that economic restructuring programs have less of a detrimental impact on women's employment. Still, the effect can be expected to be present in other countries as well. For instance, Miles (2002) discusses a similar effect in Jordan at the end of the 1980s and the early 1990s, and also in Algeria the public sector is an important employer of women (Assaad, 2003).

The limitations to the generalisability of the impact of SAPs and internationally-motivated internal violence simultaneously direct us towards more general conclusions that can be drawn from these results. Opportunities in terms of labour market structures are clearly important to women, and the presence of feminised sectors advances women's employment. Global and global-related national events and developments that hurt these feminised sectors may thus damage women's employment. Which sectors are most feminised, and thus which factors at the global level should be focussed on depends on the local context, and on the gendered labour market system in the particular country, region, or area. The indirect effect of global events thus works through the local level.

Regarding micro-level factors' context-dependent effects, the longitudinal analyses support previous conclusions and the general framework. For instance, the declining effect of higher education at first glance seems at odds with the result from Chapter 7 that education's effect declined when more jobs were present. However, zooming in on the Egyptian context shows that the balance between the supply and demand for higher-educated people is different there and this brings the results in line again. If there are not enough jobs available for all higher-educated people, additional education is no longer a guarantee for finding a job. Educating women increase the chances of the newly-educated women, but it also increases the competition of the already educated women. It changes the overall balance in an area and thus influences not just the newly educated women.

Overall, this chapter's longitudinal perspective and its combination of multilevel statistical analyses that are interpreted taking Egypt's economic and political context into account have helped to gain a better understanding of why women's employment is not a matter of ever-increasing numbers. While many processes can be advantageous, international events and politics have gendered effects on women's labour market opportunities, and expectations of rising education and declining fertility based on prior results might by misleading. In both cases it seems that the interrelatedness of factors and processes at different levels have been ignored, leading to unrealistic expectations. Applying the NOV framework and zooming in on a particular case has proven to create a better understanding of the dynamics between the factors and of how the results from previous chapter should be interpreted.





Box 11.1

1) What is the degree of women's employment in Muslim countries and how does it differ among and within countries and over time?

2) Which micro, meso and macro-level factors are the (major) determinants of women's employment in Muslim countries, and how do they influence women's employment?

3) Do the effects of explanatory factors of women's employment in Muslim countries differ in strength and presence according to time and space, and if they do, how and why do they differ?

Box 11.2 Countries studied

Algeria	Eritrea	Malaysia	Senegal
Azerbaijan	Guinea	Mali	Sierra Leone
Bangladesh	Indonesia	Mauritania	Syria
Burkina Faso	Jordan	Morocco	Tunisia
Chad	Kazakhstan	Niger	Turkey
Djibouti	Kyrgyz Republic	Nigeria	Yemen
Egypt	Lebanon	Pakistan	Zanzibar

Chapter 11

Conclusion
Khadija's legacy

11.1 KHADIJA: STILL THE FIRST -ECONOMIC INDEPENDENT- MUSLIM

After discussing many women in Muslim countries, and whether and why they were active on the labour market, Khadija's story – with which this thesis opened – is still an important one. This woman, who was Muhammad's first wife and the first Muslim in history, was economically very active and independent. After fourteen hundred years, her legacy illustrates, amongst others things, two main points of this thesis. Firstly, simply linking Islam to economically deprived women and gender inequality is short sighted. Secondly, logically related to the previous point, the story shows that Khadija's position was shaped by multiple forces, such as her class background, her marital status, her ideological attitude, societal norms, and economic opportunities. But how? The current literature on women's employment in Muslim countries already points to a reasonable array of influential factors, but an overarching understanding of how these influences are interrelated, what the dynamics between factors are, and which factors might be absent is missing. That is why this thesis sets out to understand the patterns of influences on women's economic position – more specifically women's paid employment in the non-agricultural sector – and increase our knowledge of the interrelatedness of these explanatory factors.

This goal was captured in three central questions (see Box 11.1), and the conclusions can be summarised in three central answers. Firstly, the *empirical diversity* conclusion: the variety in women's employment among countries, districts and women has shown to be so extensive that presenting one general figure on women's employment in the Muslim civilisation (by itself or vis-à-vis other groups of countries) is uninformative at best, and misleading in most cases, because it veils the diversity in employment. Secondly, the *structured multiplicity* conclusion: the differences in women's employment depend on the needs of women and societies, the opportunities women have, as well as women's values and those dominant in their environments. All influences on a woman's employment can be understood in these terms, but the way they translate to specific factors might differ. Thirdly, the *generalised context-dependency* conclusion: the effects on employment of a woman's and her household's characteristics also depend on the economic, cultural and policy environment. The effects' direction might be universal, but the exact relationship and strength thereof varies. In other words, sometimes universal claims seem to hold, but not for all factors, and it is always possible and necessary to qualify general claims.

These general conclusions might sound rather commonsensical, but are they? As shown across this thesis, many studies simplistically compare Muslim countries to others without acknowledging the differences *between* and *within* Muslim countries, thus reconstituting the belief that the lives of all women in Muslim countries are the same. If studies try to explain differences between or within countries, they often choose one specific focus or country and it is unclear how the study's explanations relate to other influences or whether they are generalisable. Regarding contextually different effects, studies either seem to assume universality or state that the effects are specific to the context. With respect to all these three conclusions, it is also the case that so far – to my knowledge – no extensive comparative study exists that has studied these ideas empirically. By transcending differences between theoretical, methodological and discipline-bound perspectives, developing a new theoretical framework, and using data on almost 300,000 women from 383 district in 28 Muslim countries (Box 11.2), I hope to have provided theoretical and empirical insights in the diversity, complexity, and dynamics between influences on women's employment in Muslim countries. Having made these

Figure 11.1 Women's gainful non-agricultural employment per country

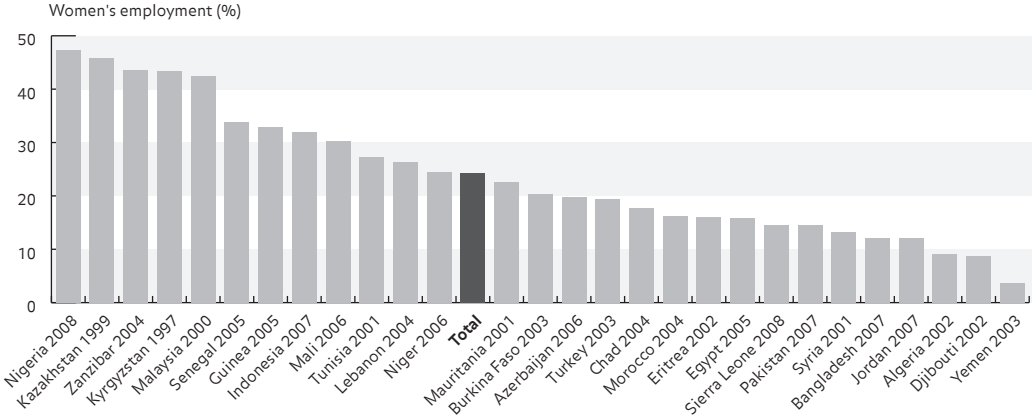


Figure 11.2 The distribution of women's gainful non-agricultural employment in 383 districts

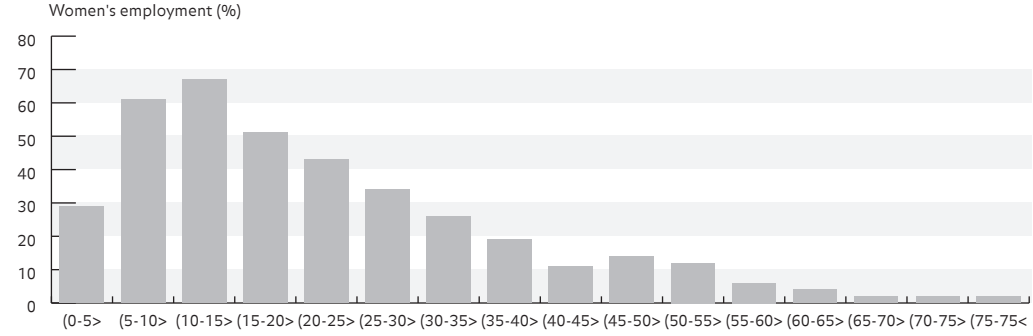
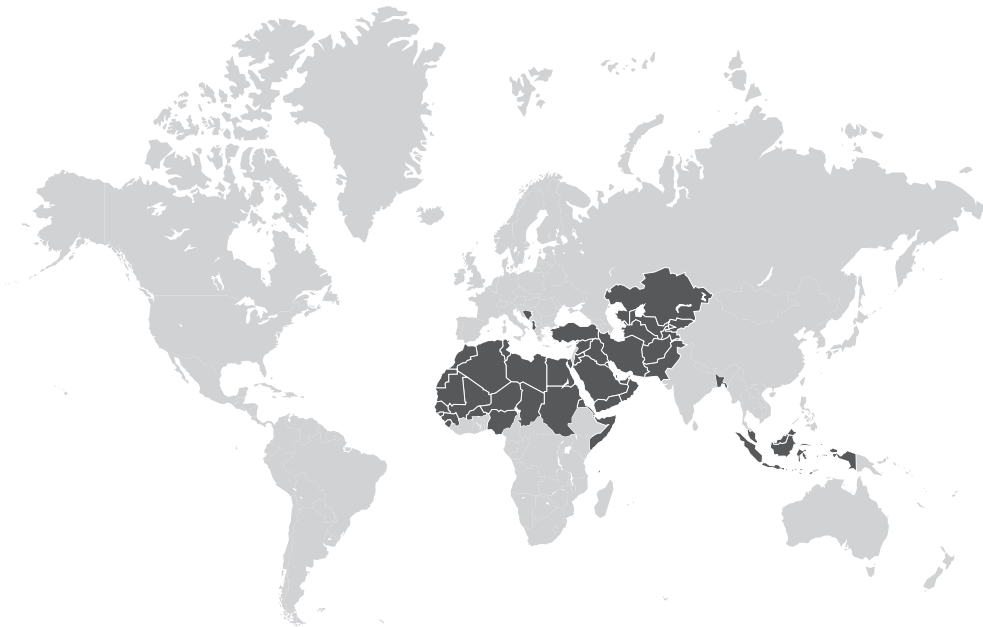


Figure 11.3 Muslim countries in 2009



general concepts – diversity, complexity, dynamics – become tangible might be considered the most important contribution of this thesis.

As argued in Chapter 4, understanding both differences and similarities among Muslim countries was a major reason to focus exclusively on Muslim countries, and thus my starting point has been the literature on Muslim countries. Consequently, factors more dominant in the literature on the West, such as welfare state regimes and policies (Van der Lippe & Van Dijk, 2002; Pettit & Hook, 2005), are less prominent here. Another reason fort that is data scarcity (see Section 11.4). Nevertheless, the framework presented here can be used better to understand the influence of policymaking, as will be shown throughout this chapter and more specifically in Section 11.6 (see also Spierings, 2012b). Only incidentally will I refer to the literature on women's employment in welfare states, but I will address the underlying issue of cross-cultural comparisons more elaborately in Section 11.4.1.

In the next section, I will unfold the general conclusions by summarising the results of the previous chapters and answering the three overall questions in greater detail (Section 11.2). Subsequently, I will reflect on the general theoretical framework used in this thesis (Section 11.3), as well as on some methodological choices and issues (Section 11.4). This latter section shows that quantitative techniques can model complexity as long as data are available and we are willing to cross the borders between methodological traditions. Subsequently, I will substantiate all these insights by discussing the broader implications for the contemporary debates mentioned in the introduction to this thesis (Section 11.5). I will finish with the most important implications of this thesis' insights in diversity and complexity for policy-making (Section 11.6), and with two short concluding notes (Section 11.7).

11.2 SUMMARISED RESULTS: UNFOLDING DIVERSITY AND COMPLEXITY

Below, the three mains answers will be made more tangible by summarising the results of the previous chapters. These results are based on multilevel analyses on women aged 15 through 49, who are neither disabled, nor in school, and the dependent variable was whether or not a woman was gainfully employed outside agriculture.

11.2.1 THE EMPLOYMENT RATES – QUESTION 1

> *The variety in women's employment among countries, districts and women has shown to be so extensive, that presenting one general figure on women's employment in the Muslim civilisation (by itself or vis-à-vis other groups of countries) is uninformative at best, and misleading in most cases because it veils the diversity in employment.*

As shown in Chapter 5, of all the women in my samples about 1 in 4 earns money with a job outside agriculture. This shows that many women are gainfully employed outside agriculture, but also that even more women are active in agriculture, working unpaid, or fulltime housewives. However, the figures differ tremendously across and within countries. In 5 countries, at least 40% of the women is employed; in three countries it is less than 10% (see Figure 11.1 – a reprint of Figure 5.2a). Within the countries major differences were found between districts as well. In a large majority of countries, the difference between the districts with the highest and lowest employment figures is at least 20 percentage points. In 90 districts from 13 countries women's employment falls below 10%; in 28 districts from 12 countries it is above 50%, and in 2 above 75% (see Figure 11.2 – a reprint of Figure 5.4). The descriptives of five countries in Chapter 10 have also shown that women's employment is not steadily rising across countries – which seems the general expectation – but that it fluctuates.

Disregarding this diversity, 'Muslim civilisation' (Figure 11.3 – a reprint of Figure 4.1) is often seen or depicted as a collection of 'homogeneous and undifferentiated social entities' (Hatem, 1987; Syed, 2008), and ideas about the Middle East are easily generalised to all Muslim countries (Read 2002: 19).[169] Gender inequality and Islam are always at the centre of this practice (Moghadam, 1996: 248). Emblematic is Hirsi Ali's (2006: 124) choice in 'Submission: Part 1' to introduce the fictitious Muslim-majority, *Shari'a*-ruled ideal-type country 'Islamistan'

169 Examples of this practice of homogenisation are abundant on issues such as gender equality and democracy and can be found in leading journals as well as others (e.g. Anker, 1998; Clark, 1992; Clark, Ramsbey & Adler, 1991; Donno & Russett, 2004; Fish, 2002; Forsythe, Korzeniewicz & Durrant, 2000; Huntington, 1993, 1996; Inglehart & Norris, 2003a, 2003b; Kenworthy & Malami, 1999; Lincove, 2008; Norris & Inglehart, 2004; Paxton, Hughes & Green, 2006; Ross, 2008; Tzannatos & Kaur, 2003; Yuchtman–Yaar & Alkalay, 2007).

170 Following Scharff (2011), this sketching of a stereotypical image of Muslim countries might originate from a desire to construct a strong Western identity of gender equality, for which a clear 'other' is needed.

171 In the case of contradictory outcomes, most leverage is generally given to the more detailed studies for the particular relationship.

172 The results from Chapter 8 indicate that a traditional household structure is not just a proxy for values, but that in the extended household the presence of certain non-nuclear household members influences the economic and care balance to women's disadvantage. After inclusion of those variables, the effect of the general variable disappeared.

(see Jusová, 2008). This thesis' results are very clear: Islamistan does not exist. I do not claim that there are no gender inequalities in Muslim countries, and we should be aware of the anthropological pitfall of creating a too positive picture to correct negative stereotypes (Jusová, 2008). Nevertheless, speaking in such a general way about Muslim countries hides so much diversity that reality is done a serious injustice.[170]

11.2.2 THE (MAJOR) DETERMINANTS OF EMPLOYMENT – QUESTION 2

> *The differences in women's employment depend on the needs of women and societies, the opportunities women have, as well as women's values and those dominant in their environments. All influences on a woman's employment can be understood in these terms, but how they translate to specific factors might differ.*

Chapter 5 has shown that it are women like Khadija (educated, widowed, between the ages of 30 and 45, no young children, living in a city) who have rather high employment rates. However, in Chapters 6 through 10 I have shown that more factors at different levels play a role, and that they are interrelated. The results of these analyses are summarised in Boxes 11.3 and 11.4, including the outcomes per chapter. Below, I present the overall conclusions.[171]

INDIVIDUALS AND HOUSEHOLDS

Box 11.3 presents an overview of all individual- and household-level factors studied. Broad support has been found for the idea that economic needs have a positive effect on women's employment across the board (Hypothesis H-I in Chapter 2). Women without a partner have higher employment rates in particular. Being head of the household has also been associated with higher employment rates, except in Southeast Asia. In the Greater Middle East and Central Asia, women in a household with fewer adult men have higher employment likelihoods.

The inhibiting effect of care needs in the household has been broadly supported by the negative association of employment with having children (Hypothesis H-II). Very broad support has also been found for the idea that the presence of more adult women in the household alleviates the care burden. For the Greater Middle East, the presence of elderly in the household increase the care burden and limit labour market participation, while the presence of children not part of the hereditary blood line seems less inhibiting than that of children who are.

Regarding women's skills, each increase in a woman's educational level increases the likelihood that she finds employment (H-IV), and it is the single most important micro-level explanation. This effect differs between countries and districts, but it is overwhelmingly positive and consistent across time and the different countries. In particular, secondary and tertiary education stimulate women's employment. Nevertheless, most employed women still have lower education levels. A strong positive effect has also been found for the resources women have at their disposal in terms of the socio-economic position of the partner (H-V). The analyses do not support a possible gendered division of job-finding resources among the young household members.

The last group of micro-level variables I have looked at are indicators for internalised traditionalism (H-VI). These seem to be important inhibiting factors and of all the value proxies, these seem best captured by the age difference between spouses and by the spouse's educational level (see Box 11.3).[172] As the results from Chapter 9 have shown, Muslim women did not have consistently lower employment chances than non-Muslim women. The age of a woman at the birth of her first child showed no effect or a negative association. This indicates that it is no good indicator of having less traditional values. It may be the case that women mainly start working once the children are older, which means that giving birth at a later age delays entering the labour market.

DISTRICTS, COUNTRIES, AND THE GLOBE

An overview of macro-level outcomes is given in Box 11.4. While at the country/global level, no effect is found for economic development and foreign direct investments, the district-level demand for labour is certainly important (H-III). The district-level depletion of the male labour

Box 11.3 Results of factors derived from the framework presented in Chapter 2 – Micro level: Individual and household

General hypotheses (see Chapter 2)				Specific hypotheses (Chapters 3, 8 and 9)			
Hypothesis	**Condition**	**Expectation**	**Expectation corroborated or falsified**	**Specific hypothesis**	**Theoretical factor**	**Expectation**	**Expectation corroborated or falsified**
HI	Material needs	+	✓	H3.1	Breadwinner present	-	✓
				H8.3	Adult men	-	✓ partly
				H8.4	Head of household	+	✓ partly
HII	Care needs	-	✓	H3.2	Children	-	✓
				H8.1	Adult women	+	✓
				H8.2	Elder people	-	✓ partly
				H8.5	Partner of head of household	-	**x**
				H8.6	Children are male	-	**x**
				H8.7	Children are not-biological related to head of household	+	✓ partly
HIV	Woman's skills	+	✓	H3.10	Human capital	+	✓
HV	Resources	+	✓	H3.11	Socio-economic network	+	✓
				H8.8	Male young relatives	-	**x**
HVII	Seclusion & segregation values	-	✓	H3.14 & H3.15	Traditional household members & Internalised traditionalism	-	✓
				H9.1[1]	Muslim denomination	-	**x**

Notes: (1) While this hypothesis was formulated in Chapter 9, it is not part of the theoretical expectations derived from the framework presented in this thesis. It is an expectation formulated in the existing literature which is in contrast with the expectations derived from my framework.

Operationalisation of the specific hypotheses				
Variables	**Level of observation**	**Chapter**	**Empirical result**	**Expectation corroborated or falsified**
Partner present	Individual	6; 7; 8; 9 IDN; 10	-	✓
		9 NGA	+	
Head of household is working age male	Household	6; 7; 9; 10	-	**x**
		8	x	
Number of adult men (15–60)	Household	8 GME, CA	-	✓ partly
		8 SSA, SEA	x	
Household position	Individual	8 GME, SSA, CA	+	✓ partly
		8 SEA	x	
Number of (young) children	Individual	6; 7; 8; 9 IDN; 10	-	✓
		9 NGA	x	
Number of adult women (15–60)	Household	8	+	✓
Number of people age>60	Household	8 GME	-	✓ partly
		8 SSA, CA	x	
		8 SEA	+?	
Household position	Individual	8	x	**x**
Proportion of children	Household	8 GME, CA, SEA	x	**x**
		8 SSA	-?	
Proportion of children	Household	8 GME	+	✓ partly
		8 CA	+?	
		8 SSA, SEA	x	
Educational attainment	Individual	6, 7, 8, 9, 10	+	✓
Partner's occupation	Individual	6; 7; 8 GME,CA, SEA; 9 IDN; 10	+	✓
		9 NGA	x	
		8 SSA	-	
Proportion among young (15–21) hh members	Household	8	x	**x**
Partner's education	Individual	6; 7; 8	+	✓ partly
		9; 10	x	
Age difference	Individual	6; 7; 8; 9 IDN; 10	-	✓
		9 NGA	x	
Traditional family structure	Household	6; 7; 8 SEA; 10	-	**?**
		8 GME, SSA, CA; 9	x	
Age at birth first child	Individual	6; 7; 8 GME, SSA, SEA;	-(?)	**x**
		9	+?	
		8 CA	+	
		10		
Muslim vs Christian and other	Individual	9	x / +	**x**

Box 11.4 Results of factors derived from the framework presented in Chapter 2 – Macro and meso level: Globe, Country, and District[2]

General hypotheses (see Chapter 2)				Specific hypotheses (Chapters 3, 8 and 9)			
Hypo-thesis	**Condition**	**Expec-tation**	**Expecta-tion cor-roborated or falsified**	**Specific hypo-thesis**	**Theoretical factor**	**Expec-tation**	**Expecta-tion cor-roborated or falsified**
HI	Material needs	+	**?/? ✓**	H3.18	Social safety net	-	**?/? ✓**
HIII	Labour demand	+	✓	H3.3	Economic development	+	✓ also
				H3.4	Depletion male labour supply	+	✓
				H3.5	Light manufacturing jobs	+	✓
				H3.6	Urbanisation	+	✓
				H3.7	FDI	+	**x**
HVI	Suitable jobs	+	✓	H3.8	Service sector	+	✓
				H3.9	Public sector	+	**?**
HVII	Seclusion & segregation values	-	✓	H3.12	Presence public sphere	+	✓
				H3.13	Traditional care roles	-	**?**
				H9.3	Conservative Islam is dominant	-	✓
				H9.2[1]	Islam is dominant	-	**x**
n.a.[3]	Government's role			H3.16/ H9.4	Institutionalisation conservative Islam	-	✓
				H3.17	Policies are traditional family-role based	-	**? /?✓**
				H3.19	Democracy	+	**x**
				H9.5	Islamic political actors	-	**x**

For district-level variables the results in brackets are those of the models presented in chapters which in the focus was not on these factors. Because for these factors it is important to focus on the paths and changes after the inclusion of other factors –as shown in Chapter 6– , these models do not provide as much information as the results of the factors focused on in Chapters 6, 9, and 10. In sum, the results in brackets should be treated with much caution. The results from Chapter 7 are excluded in total, because the models in that Chapter include interaction effects with the district-level variables. Notes: (1) While this hypothesis was formulated in Chapter 9,

Operationalisation of the specific hypotheses				
Variables	**Level of observation**	**Chapter**	**Empirical result**	**Expectation corroborated or falsified**
Family allowance	Country	6	+?	**?/?** ✓
GDP/c	Country	6; 10	x	**x**
Wealth	District	6	+	✓ also
		6 (8 Total, GME, SEA)	-	
		(8 SSA, CA; 9; 10)	(x)	
Non-employed men	District	6 (8 Total, GME, SSA, SEA;	-	✓
		(8 CA; 9; 10)	(x)	
Proportion skilled labour	District	6	+?	✓
		(8 Total, GME, SSA, SEA; 9)	(+)	
		(8 CA)	(-)	
		(10)	(x)	
Living in a city	Household	6, 7, 8, 9, 10	+	✓
Urbanisation	District	6	+?	**x**
		(8, 9 NGA, 10)	(x)	
		(9 IDN)	(-)	
Inflow foreign investment	Country	6, 10	x	**x**
White collar jobs	District	6 (8 Total, CA, SEA; 9 NGA; 10)	+	✓
		(8 GME, SSA)	(x)	
		(9 IDN)	(-)	
Tourism inflow	Country	10	+	✓
Government expenditures	Country	6	+	**?x**
Government employment	Country + district	10	+	✓
Relative presence women	District	6 (8 Total, GME, 9 NGA)	+	✓
		(8 SSA, CA, SEA; 9 IDN; 10)	(x)	
Prevalence traditional household	District	6 (9 IDN)	-?	?
		(8 SEA; 10)	(-)	
		(8 GME, CA)	(x)	
		(8 Total, SSA; 9 NGA)	(+)	
IDN: Modernist vs Traditionalist Islam	District	9	-	✓
NGA: non-Sokoto vs Sokoto Islam			-?	**? /?**✓
Muslim vs Christian or other	District	9	x / +[2]	**x**
State Islamisation	Country	6 (8)	-	✓
Shari'a implemented		9	-	✓
Gender unequal policies and laws	Country	6	-?	**? /?**✓
Political rights & civil liberties	Country	6; 10	x	**x**
IDN: Political parties	District	9 IDN	+?	**x**
NGA: Governors		9 NGA	x	

it is not part of the theoretical expectations derived from the framework presented in this thesis. It is an expectation formulated in the existing literature which is in contrast with the expectations derived from my framework; (2) One negative effect was found: In Indonesia the Hindu province has a higher employment rate than the Muslim ones; (3) Some government-related factors could be directly linked to one of the seven main hypotheses, but the factors mentioned here might have multifinal effects and are thus related to more than one of the seven hypotheses.

173 The public sector did not turn up in Chapter 6, but the operationalisation was far from optimal there. The more detailed analyses in Chapter 10 provided rather strong indications that the government sector is indeed important for women.

174 In Chapter 7 this theoretical argument helps to explain the at first glance surprising interaction effect between education and light manufacturing.

175 The district-level wealth and traditionalism variable indeed correlate negatively (–0.765; $p<0.001$; $n=383$). If, the district-level traditionalism variable taps into the economic deprivation in districts, it might have become part of an U-curve effect of economic development together with the district-level wealth variable.

force has a rather strong general positive effect, indicating that it is crucial whether there are still non-employed men. Also living in a city is unambiguously positively related to women's employment, and sub-national wealth seems to have a positive influence through the labour market structure (and education and gender norms). But indications of an additional negative effect were also found: in richer areas the economic incentives to enter the labour market are smaller for women.

Refining the idea of demand, the kind of jobs that are available has turned out to be highly relevant (H-VI), and the labour market structure in the vicinity of women is particularly vital. Local gender norms determine which (sub)sectors provide the most opportunities and the greatest demand. White-collar jobs, including the tourist and government sector,[173] are generally positively associated with higher employment levels for women. The presence of a larger light-manufacturing sector (including the food and textile industry) also seems to benefit women, and not just the lower educated ones.[174] Several global processes have proven to be important in this respect, but only through the local labour markets. The international economic policies of the WorldBank and the IMF, and the interrelation between international tourism and anti-Western violence against tourists have been shown to damage women's employment opportunities in certain Egyptian districts.

Despite some difficulties in measuring them, differences in norms and value systems turned out to be rather influential (H-VII). The presence of women in the public sphere seem to serve as a positive example and increases women's employment, but no strong or robust effect has been found for the traditional care role norm. This factor, measured by the prevalence of traditional household behaviour, even showed some positive effects. Because the effects were controlled for micro-level values, the variable might have tapped into the economic situation: in the more traditional – poorer – areas there is a higher need to enter the labour market.[175] Regarding religion, in areas where a more conservative Islam is dominant women have employment rates lower than those in areas with a more progressive Islam. No consistently lower employment levels are found in Muslim districts compared to non-Muslim (mainly Christian) districts.

Lastly, of the political factors the overall political system did not show to have a clear effect. It can be that democracy offers opportunities both to feminist movements as to organisations lobbying against women's empowerment. The institutionalisation of conservative Islamic law and practices, such as *Shari'a*, has a strong, negative effect on women's employment, both at the country or district level. Simultaneously, the presence of Islamic political actors showed indications of a positive effect in Indonesia, where Islamic and Muslim parties are also the parties that want to promote employment of the lower social classes. The more general country-level policy variable and the presence of a social safety net variable did not show any effect, which might be related to the absence of strong welfare states and data limitations (see Section 11.4). Still, possible indirect effects of welfare policies, for instance through education and economic need, as well as the results of the variables here suggest that policymaking is highly relevant, but that better indicators are needed to further understand the effects.

11.2.3 THE DIFFERENT EFFECTS OF MICRO-LEVEL INFLUENCES – QUESTION 3

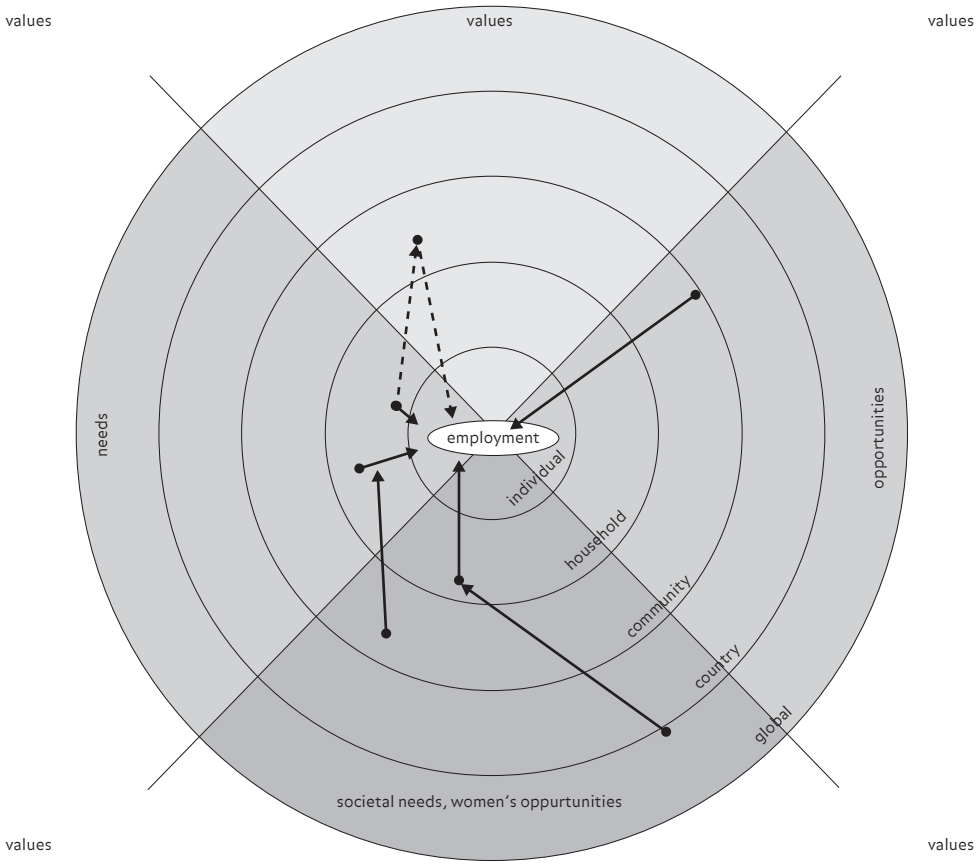
The effects on employment of a woman's and her household's characteristics also depend on the economic, cultural and policy environment. The effects' direction might be universal, but the exact relationship and strength thereof varies.

To claim context-dependency is one thing; to understand it is another. Context-dependency was analysed for education in 28 countries and 383 districts, household configurations in 4 regions, and for all micro-level factors in Egypt over time. The overall patterns are discussed below. Further details can be found in Chapters 7, 8 and 10.

EDUCATION

The effect of education is almost exclusively positive, though it varies quite a bit between countries and districts, and over time. The balance between the demand (few non-employed

Figure 11.4 A holistic-level framework for explaining women's employment in Muslim countries



176 This idea explains these results for the Greater Middle East.

177 This was how I have explained the effects found for Sub-Saharan Africa.

178 At least, this can explain the results for Central Asia regarding having children, and Southeast Asia regarding having children and the presence of other women.

179 Also some additional analyses in Chapter 7 support this idea: the effect of having a partner is smaller in less economically developed areas.

180 The average district-level wealth was lower in 2000 than in 1995 and 1992, but higher in 2005 than 2000, and non-employment of men was highest in 2005. This is no unambiguous pattern of increasing economic hardship however.

males, urbanisation, and service sector jobs) and the supply of higher-educated labour determines the effect of educational levels. If the number of higher-educated people is smaller than the demand for tertiary-educated people, all higher-educated women who want a job can find one, and it will also be easier for secondary- (and lower-) educated women to find a job if the number of jobs increases. Similarly, if the context is that the supply of higher-educated people outnumbers the demand, additional jobs will mainly benefit higher-educated women, which will increase the gap between lower- and higher-educated women in terms of the returns of education.

A different pattern was found for the presence of light manufacturing jobs. As already mentioned in the previous section, the results I have observed suggest that this sector offers additional opportunities for women who want to work, but seem to prefer working at home. An increase in the number of these jobs pulls a new group of higher-educated women onto the labour market, leading to a larger difference between lower- and higher-educated women and thus to a stronger effect of education.

Regarding a prohibiting effect of norms, most support was found for the idea that in particularly the effect of lower education is shaped by the strength of the norms; tertiary-educated women tend to break free from societal norms and have similar employment levels across districts, lower-educated women are more restricted in a traditional environment than in a less traditional district.

HOUSEHOLD STRUCTURES

In Chapter 8, I have shown that the effect of household configurations varies across the four regions I have distinguished: the Greater Middle East, Sub-Saharan Africa, Central Asia, and Southeast Asia. Firstly, it appears that, if the gendered division of household roles is strict and focussed on the general household management, the care demand (presence of children) has less of an influence because women are already restricted.[176] Secondly, in the context of economic hardship the care supply and demand balance (presence of children and other adult women) seems less influential as well.[177] Thirdly, if it is somewhat more normal for women who are not leading the household management to have an economic role, the effect of shifts in a household's care balance seem to influence these women with fewer care duties to a greater degree.[178] For instance, the women without children are the ones that mainly benefit from a loosening of norms.

Economic needs and the importance of patriliny also depended on the context. A weaker impact of having higher economic needs (the absence of a partner and other adult men in the household) seems to be related to a context of general economic hardship, as in Sub-Saharan Africa.[179] However, it is not clear whether this also explains the weakening effect of having a partner that I have found for Egypt.[180] Differentiating between the type of children (biologically related to the head of household or not) seems to be most relevant in a context of stricter patriliny, because in such a context being part of the bloodline is related to a child's higher perceived care needs, thus making the environment more restrictive.

VALUES AND RESOURCES

I have not paid specific attention to differing effects for the other micro-level factors. However, the differences in results across the chapters suggest that further study and theorisation of the contextual effects of different resources (H-V) and values (H-VII) should take place. For instance, as shown in Box 11.3, partners' education and occupation has a positive effect in most contexts, but not in all, see Egypt, Nigeria, or Sub-Saharan Africa.

11.3 THE MULTILEVEL NEEDS-OPPORTUNITIES-VALUES FRAMEWORK

Now that we have a gained better understanding of which factors influence women's employment, I will go back to the framework from which this thesis started (see Figure 11.4). It was built on four premises (see Chapter 2), and below I will reflect on these, show that their claims have been warranted, and discuss how the framework can be further refined and developed.

181 Also Villarreal & Yu (2007) find that (foreign) employers' have preferences for women, and these cannot be solely explained in economic terms, values seem to play a role there.

182 Assaad & Arntz (2005) is an exception to the rule. They include the governorate level in a comparative (statistical) analysis.

183 Based on the partitioning of the variation in Chapter 6, the variation at the district level seems moderate compared to the variation between countries, but the statistical and substantial significance of many variables at this level as well as the variation found in Chapter 5 make me concludes that this level is indeed important to women's employment.

184 See the discussion in Teachman & Crouder (2002). Regarding the constituencies, the database on constituency-level data, which is being built by Garcia (2011), is noteworthy. For instance, Indonesia, Niger, and Turkey are part of it.

The first premise was that both structure and agency are important, women are neither "passive recipients", nor fully autonomous (see also Hakim, 1991; Rathgeber, 1990; Razavi & Miller, 1995; Walby, 2009: 72). Moreover, women are not the only agents; other agents are present within the context as well. Nevertheless, the literature often equates structure with context, and given the focus on contextual forces when it comes to women's employment in Muslim countries, this easily leads to neglecting the importance of agency, and consequently, the diversity within countries. The results in this thesis draw attention to the role of agents, particularly these agents' preferences, at the different levels, without losing sight of general patterns. Firstly, at the level of the women themselves, the desire to work seems strongest among higher-educated women, but the results simultaneously suggest that the circumstances under which women want to work differ, and it looks as if a considerable group of women might only prefer home-based jobs. Not taking this into account creates false expectations about structural changes such as the creation of more service-sector jobs. Secondly, the influence of the household-level values variables indicates that other household members' preferences are important. While the focus on the household as one actor was already problematised over twenty years ago (e.g. Wolf, 1990), there is still little attention for the different agents in the household or the way in which cultural norms (such as particular patriarchal bargains) interact with the presence of these agents. That this is relevant is suggested strongly by the different effects of the presence of, for example, elderly household members and other adult women. Thirdly, there should be more attention for agents at the macro-level, such as employers (and politicians). While it is often mentioned that women more easily find jobs in the service sector, the concrete preferences of employers are hardly studied. My results however suggest that employers prefer higher- over lower-educated women (also in low-wage jobs) – and occasionally women over men, if women are higher educated and men not[181] – which has major consequences for the employment gap between higher- and lower-educated women. Measuring employer' preferences directly can be an important next step in understanding these dynamics.

The second premise – multilevelness – has helped to understand and structure the multiplicity of influences: based on existing studies I distinguished five theoretical levels where influences can be found: the individual, household, district, country, and global level. It hardly seems surprising that each level proved to have influences that turned out to be important, but one of the five levels is largely ignored in the literature: the sub-national level.[182] Data availability reasons might have led to this, but theoretically and empirically my results strongly argue in favour of including the sub-national level. Norms, labour market structures, institutionalised religion, and, possibly, political actors all influence women's employment at the sub-national level. Furthermore, country- and international-level developments such as political violence and global economic politics affect women's employment through the sub-national level.[183] The direct and indirect roles of the sub-national level support the idea that proximity is important. A next step is to test whether contexts closer by than the district are even more important, and if the geographical focus needs to be reconsidered by highlighting, for instance, social environments and political districts or constituencies. The questions here are: are norms less tied up with geography than with the social environment (see Teachman & Crouder 2002), and are political influences not more closely related to constituencies?[184]

Thirdly, I have claimed that the factors at different levels should be studied in combination. I distinguished four ways in which this could work, including two that are hardly ever studied comparatively: context-dependent effects and multilevel spuriousness. Together with the direct and indirect influences, these forms of relatedness seem crucial in interpreting the empirical results. The importance of multilevel spuriousness was illustrated by the labour market structure's effect. For instance, the size of the effect of the service sector will be overestimated by more than 50% when not controlling for the educational level of the women in the area. The higher employment in those 'service sector' areas is partly caused by higher education levels in the area. This is not picked up in macro-level only studies. The embedded relationship has been discussed elaborately above in answering Question 3 (Section 11.2.3). For this type of relationship it seems that the lack of sufficient data and techniques have halted the development of theoretical arguments that go beyond the 'it's-context-specific' argument (see Pampel &

185 Similarly, Moghadam (2003) sees the gender system as an underlying mediating structure, but I perceive this underlying system more broadly, and Moghadam grounds the gender system in the capitalist economic system.

186 Marriage is preferred over living together (unmarried), couples are considered better in raising children than single parents, and it is thought that if children are born people should marry.

187 The examples here are not exhaustive, nor did I pay special attention to all aspects of Walby's complexity theory, as my framework is not a direct translation of it.

Tanaka, 1986; Van der Lippe & Van Dijk, 2002). My results and approach show that cross-cultural differences in effects exist and can be theorised, modelled, and generalised, though it has not been done enough.

Fourthly and in conclusion, inspired by Hijab (1988; 2001) my research has been premised on the notion that the influence of the interrelated characteristics of the agents and structures can be understood in terms of three basic conditions: needs, opportunities, and values. This approach has shown itself to be particularly useful in understanding the multiplicity of influences, as well as their context dependency. First, in the light of multiplicity, I identified several household configurations as explanatory factors by applying the framework to the concept of patriarchy. This framework then helped to understand surprising results by disentangling effects. A prime example of this was interpreting the effect of economic development as a combination of creating opportunities and labour demand, changing value patterns, but also decreasing economic needs. Lastly, and shifting toward context-dependency, the importance of the underlying value system in societies was demonstrated. This system shapes what are believed to be the population's opportunities and needs.[185] This implies that much more attention needs to be directed at understanding the different dimensions along which value systems vary. While I have paid attention to distinguishing public seclusion and traditionalism, other studies on women's employment mention dimensions such as Machista attitudes in Chile – focussing more on coupledom (Contreras & Plaza, 2010)[186] – or on gender traditionalism attitudes versus egalitarianism in the United States (Maume, 2006). The question now is along which dimensions different value systems truly differ from each other, and how this is reflected in women's employment. Fourthly, the NOV framework helps to understand the context-dependency of effects in different contexts, as discussed elaborately by now. Future research might pay more attention to the embedding effects of policies that, for instance, dampen or increase the influence of care needs in the household.

As can be derived from the discussion above, the four premises of my theoretical framework are fundamentally related to the three main conclusions – empirical diversity, structured multiplicity, and generalised context-dependency – because the framework allows for them to be traced and because it facilitates substantiation and interpretation. Complex interrelatedness has not only been a mere assumption in this work, it has been revealed to be at work in the world; and for the case women's employment I have fleshed out the general idea of complex interrelatedness. In that sense, this work can also be considered as an example of how very general theories can be translated into large-scale comparative empirical research.

In that light, the framework I have used is grounded in several existing approaches of which Walby's complexity theory (2007, 2009) is the most encompassing one. While I did not take that theory as my sole starting point, this thesis can be considered as a practical application of Walby's work. A translation that might seem daunting, but is thus possible. Walby argues for the existence of several institutional domains and inequality regimes that are in a constant process of change, mutually shaping each other and at the same time irreducible to one another (Walby, 2009: 58–70). Using my conditions framework to identify factors based on the mechanisms at work have led to the inclusion of explanatory factors related to Walby's four domains (economy, polity, violence, and civil society), as well as different regimes of inequality (e.g. gender, class, religion). This runs counter to the very most common practice of reasoning from the primacy of one of the domains, often economy, culture, or politics. For instance, Marxist (or Marxist-inspired) feminist theory retraces everything to the economic system (cf. Fazeli, 2002; Hatem, 1987; Jaquette, 1982; Moghadam, 1998, 2003). Also, my analyses substantiate Walby's claim that an inequality (in this case based on gender) has a basis in all levels of abstraction: micro, meso, and macro (Walby, 2009: 65). My focus on contextual embeddedness then is one way to conceptualise the differences in trajectories of development and non-linearity, for instance in terms of the catalysts, dampeners and, feed-back loops Walby speaks of (Walby, 2009: 59).[187]

In sum, the multilevel NOV can show how basic complexity mechanisms are applicable to specific issues (such as women's employment), and can be modelled in statistical research. I would argue that my framework can also be used as a bridge from general ideas about complexity

188 One can think of non-agricultural labour and informal labour, but also aspects of economic participation such as number of hours, segregation, and economic activity status (see Van der Lippe & Van Dijk, 2002).

189 Examples of in-depth studies on this topic regarding women's reasoning and preferences that I have used are De Regt (2009) on Yemen, Jansen (2004) on Algeria, Metcalfe (2007) on Bahrain, Miles (2002) on Jordan, and Vidyasagar & Rea (2004) on Saudi Arabia.

to other forms of labour market participation than women's gainful, non-agricultural (self-) employment.[188] Moreover, using multinomial models, we can distinguish effects on blue-collar labour, lower white-collar labour, and upper white-collar labour. For instance, it is my expectation that care needs have rather similar effects across these types of labour, but economic needs mostly push women in blue-collar and lower white-collar jobs, while opportunities are far more important for getting an upper white-collar job. Similar translations can be thought of for other forms of participation; studying educational, societal, and political participation by applying the multilevel NOV framework could prove fruitful (see Spierings, 2012b).

11.4 CONNECTING METHODS AND DATA

Large-scale comparative datasets are pivotal to the study of empirical diversity, structured multiplicity, and generalised context-dependency, and for this approach to women's employment I also had to bring together different methodological perspectives. Here, I will reflect on the merits and drawbacks of this approach, as well as how further scientific progress can be made and what kind of data would be beneficial to that.

11.4.1 LIMITATIONS AND FURTHER RESEARCH

Studying complexity on the one hand and doing large-scale statistical analyses on the other might on some points be at odds with each other, and combining them might come at the cost of the depth of analyses and data (compared to their width). Along these lines – internal and external validity – I shall discuss the challenges faced in this thesis and the ways its framework could be developed and tested further.

To get a better grasp on the internal validity of my results, I have included intervening variables in the models, but the focus in this kind of statistical research remains on external validity. Therefore, I have complemented and compared my results with insights from studies focussing on people's motivations, such as fieldwork-based research.[189] More of such in-depth studies could help to explain discrepancies and test whether the associations found are causal instead of spurious. It might also help to test my ideas about why household configurations have different effects across the countries.

The internal validity of this study might in some cases also have been compromised because of limitations in data availability and quality. The scarcity of good data is particularly severe for specific policies (see Section 6.8) and cultural norms (see Chapter 9), as well as sub-national-level factors. Due to suboptimal measurements, fewer relationships will turn out to be statistically significant, which is why I have been cautious about fully rejecting hypotheses. Moreover, variables might tap into something different from what I envisioned, and theoretical mechanisms sometimes are hard to distinguish empirically. The former explains some surprising results such as the negative effects of district-level traditionalism or the age of a woman at birth of her first child. The latter applies to the individual-level variables measuring values. They hardly allowed me to differentiate between values of the women and other household members.

A last reflection on the internal validity concerns reversed causality. While this might be present in some relationships, I expect that it is only partly reversed. In-depth studies support this, as well as studies explicitly testing endogeneity. For instance, discussing the relationship for which this issue is most salient (between children and employment), Kotsadam (2011) used six recent studies (2004 onwards) that investigated potential endogeneity, all using panel data or instrumental variables. He concludes there is no strong case for fully reversed causation and that the biases due to endogeneity are limited (Kotsadam, 2011: 137–9). Contreras & Plaza (2010) also found that cross-sectional methods deliver estimates close to these 'better' methods. It thus seems warranted to argue that the household division of labour in particularly withholds women with children from entering the labour market.

Overall, to increase and assess the internal validity, I have made use of data at different levels, compared models, used other studies applying different approaches, and created new data. Nevertheless, further assessments are needed and for that I would advise combining statistical and observatory or in-depth interview approaches, and the creation of better comparative data.

190 The number of 24 is based on the population figures from the year 2009 as presented in Chapter 4. Based on the year of measurement and the exact source of the figures, the total number of countries in the population might vary a bit. Roughly, about 50 countries can be defined as being a Muslim country.

191 Previous studies found contradictory results (e.g. Moghadam, 1998, 2003; Ross, 2008; Spierings, Smits & Verloo, 2009). My framework would predict hardly any (positive) short-term labour-opportunities effect, a long-term positive effect through the development of the service sector, a possible negative wealth effect, and a negative effect through the perpetuation of traditional norms. The results in Chapter 10 suggest that there is indeed no short term-effect.

192 Fairly recent examples from both industrialised and developing countries include Contreras & Plaza (2010), Drobnic, Blossfeld & Rohwer (1999), Kotsadam (2011), Van der Lippe & Van Dijk (2002), and Vijverberg (1993).

193 Here I echo Adely's (2009: 113) words when she discusses the focus on patriarchy for women in Arab countries: "It is obvious that patriarchal notions of a proper division of labor do exist and are at play in framing people's choices and desires – both men and women – but that does not preclude other explanations or an attempt at a more complex analysis of factors in such important economic, political, and personal decisions."

With respect to external validity, the representativeness of the cases at the macro and micro-level determine the generalisability of my results. As far as I know, no other combined macro/micro study on Muslim countries has included 28 countries or more. However, regarding the macro-level, 24 countries of the population were still left out.[190] A possible bias is mainly found in the absence of the oil economies. The influence of oil on women's employment has thus not really been studied.[191] Furthermore, the micro-level effects might differ in strength in such a context. My results on labour market structures and norms can be extrapolated to those countries, but whether this is legitimate remains an empirical question in need of more comparable micro-level datasets (see also Van der Lippe & Van Dijk, 2002). Regarding the generalisability over individuals, the samples in this study have been restricted to women aged 15 through 49. However, I have no direct reason to believe that the general effects presented here do not generally hold for older women. They might differ somewhat in strength, but the theoretical framework foresees such effects. This thesis is unique in its empirical scope, but does not include a fully representative sample of the theoretical population. Again, the collection of more and better data across and within countries is crucial.

Related both to the internal and external validity is the issue of cross-cultural comparisons or 'establishing equivalence' (e.g. Landman, 2008). I would argue that the approach taken in this thesis transcends the issue by taking a position that is both universalist and relativist: embedded interrelatedness in combination with a meta-level framework. In this light, one may wonder about cross-cultural comparisons beyond the borders of 'the Muslim world'. For instance, the effects for education, having children and marriage show similar patterns across the world.[192] But a universal pattern does not equal finding the same effect everywhere. So far, hardly any study has focussed on systemising and testing the extent of and grounds for differences in effects; it often remains a matter of assumptions. Comparisons along this line might also show whether it is tenable that the different geographical literatures tend to focus on other factors. Of the macro-level variables, (childcare) policies are stressed relatively often in the literature on welfare states (e.g. Van der Lippe & Van Dijk, 2002; Pettit & Hook, 2005), while for Muslim countries economic and cultural contexts are highlighted (see Hijab, 1988; Moghadam, 1996, 1998, 2003), and the concept of the extended family is mainly associated with Muslim countries. These particular focuses are hardly justified. In Muslim countries, as I have shown, there is a multiplicity of economical, political, and cultural factors that influences women's employment,[193] and I see no reason why this would be different in other countries. Much is assumed about cross-cultural comparisons, but fairly little is truly tested comparatively. Whether or not effects differ across countries and concepts have different meanings can be tested by focussing simultaneously on the various contexts. To do this, large micro/macro-level combined databases need to be built, and at the same time the walls between scientific fields need to be broken down.

11.4.2 MERGING CULTURES

Too often have I come across statements about quantitative and qualitative research that describe them as two essentially different paradigms, using phrases such as 'A Tale of Two Cultures' (Mahoney & Goertz, 2006) or terms like 'war' (see King, Keohane & Verba, 1994: 3). As someone who is trained in both qualitative and quantitative techniques, and who moves between the fields of sociology, political science, gender studies, economics, and anthropology, I have seen many differences between the applications of methods, and found there to be strong bulkheads between disciplines. This thesis might seem a classic example of quantitative, large-scale data-driven research, but the theoretical and empirical analyses here have greatly benefitted throughout the process from non-quantitative, critical studies and approaches. I have used large-dataset research to study general patterns and have tried to draw general conclusions, but at the same time I thankfully made used of knowledge from other studies to inform my concepts and validate my expectations of why certain relationships exist. These same other studies have also led me to include and model diversity and complexity.

In this respect, the virtues and vices of quantitative research strategies in feminist and gender studies have been heavily discussed since the 1970s,[194] and, with McCall (2005) and others, I have argued before (see Spierings, 2010, 2012a) that a great degree of diversity can be

194 The discussion was wide spread and not just found in the humanities, where the postmodern turn was strongest. Focussing mainly on the social sciences some of the most important and other interesting contributions to the debate include Bernard (1975), Bottero (2000), Harding (1986, 1997), Jayaratne (1983), Maynard (1994), Mazur & Goertz (2008), McCall (2005), Millman & Kanter (1975), Oakley & Oakley (1979), Ramazanoğlu & Holland (2002), Reinharz (1992), Spierings (2011, forthcoming).

195 DHS samples clusters in all districts and about 20 households in each cluster. Kravdal (2006) argues that the micro-level data can also be aggregated to the cluster level. See also Huisman (2011). More generally, also King, Keohane & Verba (1994) have argued to focus on subunits as an option for increasing the number of observations. They argue correctly that we should be cautions however, because the causal mechanism must be able to take place in the subunits. However, I believe it is too often assumed that countries are the best units, whereas the causal mechanism is more tied up to a subunit than the superunit.

196 See also the discussion of the closely related anti-categorical approach, as it is labeled by McCall (2005).

incorporated in statistical research by using interaction effects and 'identity' dummies, and by discussing variability next to centrality. This thesis provides many examples of this. In a similar vein, I do think that 'complex relationships' can be modelled and studied statistically (cf. Walby, 2009: 59–100). For instance, I have modelled non-linearity using dummies and interactions (education's effects); critical turning points using dummies (think of the shock effect of attacks on tourists); catalysts and dampeners using interaction terms (norms and household configurations); and path dependency can be captured by time lags, dummies, and time series analyses (cf. Walby, 2007: 465). To further model this complex interrelatedness and understand women's economic position, the development of large cross-disciplinary multilevel databases – including sub-national-level data[195] – is crucial. In addition, studies of these data should be accompanied by in-depth research, such as anthropological studies and case study designs. I believe this thesis illustrates that the different methods and approaches need each other in order to obtain a greater internal and external validity, and that a field of research that wants to develop itself needs to open up to insights from other traditions.

11.5 CONTEMPORARY DEBATES: ISLAM, MODERNISATION, EDUCATION, GLOBALISATION, AND PATRIARCHY

The main empirical, theoretical, and methodological results have been discussed and reflected upon, and the resulting insights have been captured in the words 'empirical diversity', 'structured multiplicity', and 'generalised context-dependency'. Here, I will show how these insights inform contemporary debates on issues such as those highlighted in the introductory chapter: Islam, modernisation, education, globalisation, and patriarchy.

11.5.1 ISLAM

Regarding the link between Islam and gender equality, roughly two approaches can be distinguished in the literature. Firstly, there is the civilisationist approach, which I have often criticised in this thesis. It treats Muslim countries as one homogenous bloc with Islam and gender inequality as identity markers, the former leading to the latter (e.g. Clark, Ramsbey & Adler, 1991; Norris & Inglehart, 2004; Ross, 2008; Yuchtman-Yaar & Alkalay, 2007). My conclusion of empirical diversity clearly counters this idea, and some authors did to some extent incorporate diversity among Muslim countries in later work (e.g Norris, 2009), perhaps due to earlier critiques (e.g. Spierings, Smits & Verloo, 2009). Furthermore, the results in this thesis have shown that religious denomination is no good general explanation for a woman's employment.

In terms of the NOV framework, Islam is clearly linked to the condition of values; however, Islam constitutes both less and more than a single value system. Less than such a value system because Islam is only one of the sources that shape the needs, opportunities, and values influencing women's employment, as indicated by the chapter on household structures. On the other hand, it is more than one value system: as I have shown, the message of Islam is diffuse and contains multiple dimensions. It can for instance focus on gender equality or on socio-economic justice, and different positions can be taken on each of these dimensions. In this light, even a focus on religiosity instead of religious denomination is still rather crude (cf. Read, 2004). The messenger can also take different shapes, and in this study alone it already entailed cultural norms, internalised values, institutionalisations of specific religious values in policy, and violence motivated by religion.

Deconstructing the influence of religion this way brings me to the second approach in the literature on gender and Islam. The more anthropological and postmodern studies focus on how local culture and religion are intertwined; how women are subject to religious practices, but also how they use Islam to their own advantage; what the performative aspect of Muslim women's behaviour is (e.g. Jansen, 2004; Johnsdotter, 2003; Freedman, 2004; Ghorashi, 1996; Gruenbaum, 2001; Ketner, Buitelaar & Bosman, 2004; Mojab, 2001; Moors, 2004). This literature offers important insights that have informed the framework and theories used in thesis, but it tends to overstress differences, and ignore or exclude general patterns.[196] The notion of generalised context-dependency implies a less extreme position on diversity (see Spierings,

197 Let me again list some studies on Muslim countries supporting this: Aromolaran (2004), Assaad & Arntz (2005), Calvès & Schoumaker (2004), Glick & Sahn (1997, 2005), Gündüz–Hoşgör & Smits (2008), Hirschman & Aghajanian (1980), Khattab (2002), Kuepie, Nordman & Roubaud (2009), Moghadam (1998, 2003), and Pettit & Hook (2005).

2012), and I have shown how certain effects might differ – for instance, by the (partly religiously informed) patriarchal bargain – but at the same time are roughly similar.

In short, the NOV framework walks a middle ground and usefully conceptualises Islam, or religion more generally, as one of the sources of a value system that manifests itself at different levels and in different guises. The framework thus enables us to study general influences without simplifying Islam to a stereotype.

11.5.2 MODERNISATION

Regarding modernisation, the general conclusion in the extensive literature was that it has a positive influence on women's employment. After criticism from the Women-In-Development approach (see Boserup, 1970; Elson, 1991; Jaquette, 1982; Rathgeber, 1990), this conclusion was modified to only hold for non-agricultural labour (e.g. Inglehart & Norris, 2002; Pampel & Tanaka, 1986; Spierings, Smits & Verloo, 2009).

The broad mechanism that links modernisation to women's employment is generally formulated in terms of economic and values change, including economic development, urbanisation, increased education, decreased fertility, and a value shift towards gender equality. These are said to lead to an increase in the demand and supply of labour, which is supported by my results as well. However, economic development – which is often at the start of the modernisation process – is only conducive to employment when it is not based on petrol exports. The labour demand coming from the petrol industry does not fit the role assigned to women (Inglehart, 1997; see also Ross, 2001, 2008). In line with this, the disentanglement of labour markets here shows that in the first phase of modernisation ('industralisation' [Inglehart, 1997]) light manufacturing (e.g. food and clothing) fosters women's employment, not heavy industry, and in the second phase ('postmodernisation' [Inglehart, 1997]) it is the growth of the service sector that increases women's chances on the labour market. The sectors have to fit the role of women in the light of societal norms. In addition, I have found that modernisation can have negative effects by decreasing the economic needs of households, in which case modernisation then prevents women from entering the labour market, because incentives are absent. Still, the overall effect of modernisation might be positive.

The conclusion about structured multiplicity not only serves to disentangle and refine the mechanisms within the process of modernisation, it also draws attention to the matter that modernisation should not be seen in isolation. This relates to the discussion about the trajectories of modernisation: are they similar everywhere (Inglehart, 1997; Lerner, 1958), do they run parallel to each other depending on the cultural context (Inglehart & Baker, 2000; Norris & Inglehart, 2002), or are there many different modernisation processes with their own trajectories (Azzam, Abu Nasr & Lorfing, 1985; Huntington, 1996; Lenski & Nolan, 1984; Moghadam, 2003)? The strong evidence for structured multiplicity and generalisable context-dependency suggests that modernisation is indeed a process with universal tendencies, but that the trajectories are not completely fixed and shaped in interaction with the context. There is a strong pattern in which economic development leads to an increased demand for (female) labour through the (light) industry and service sector, and the supply of labour is increased by higher levels of education and norms shifting towards gender equality. At the same time, these developments differ considerably. For instance, governmental policies might dampen the effect of labour market demand; cultural norms shape the strength of the educational effect; political violence can disturb the demand for labour; shifting norms might not affect the most traditional women; the importance of having children seems related to the economic needs of a household; and norms do not always shift towards gender equality. The challenge lies in understanding and generalising these divergences from the universal pattern.

11.5.3 EDUCATION

Both my results and a broad literature[197] find the following statement to hold true: education fosters women's employment. There is no doubt about it, is there? Assessing education as one of multiple influences embedded in its context sheds light on the effect of education, which seem less straightforward after a second reading of the literature.

198 The costs of hiring someone to perform household tasks may still be considered in the decision-making processes, and the additional income might be dependent on possible additional costs (e.g. public transport, clothes), or that the cost of leaving the household are measured in terms of the expected hourly wage. Human capital theory as applied by Aromolaran (2004) and Kuepie, Nordman & Roubaud (2009) seems to say, assume, or imply otherwise.

199 The concept of time-poverty and the finding – for Guinea – that women are considerably more 'time poor' support this idea (Bardasi & Wodon, 2010). The time spent on the household and activities on the labour market are not a zero sum game; additional activities such as employment come at the cost of time for rest and leisure.

200 It has to be noted that most of these studies clearly describe or define which aspect of globalisation they study empirically, but in the overall presentation it is often suggested that results hold for globalisation as a whole.

There are different ideas about how education fosters employment, but most of these agree that the effect of education is not linear. While my results also support this non-linearity – the positive effect of education grows disproportional to the level of education – , they do not support non-linearity's major proponent: human capital theory. Aromolaran (2004) and Kuepie, Nordman & Roubaud (2009) applied human capital theory to respectively Nigeria and West African capital cities, and argued that primary education leads to lower employment, because the skills developed during primary education benefit women's household role more than labour market duties (see also Lincove, 2008). Consequently, the opportunities costs of entering the labour market outweigh the additional income. Based on the dominantly positive effects of primary education in this thesis, I have to disagree with this reasoning. In the NOV framework, the effect of education is rather straightforwardly seen as increasing women's human capital, which opens more doors on the labour market. No highly rationalised (opportunity) cost-benefit analysis is made,[198] and household tasks can be given to other women in the household or be given less importance or time, or women can simply face a double burden.[199]

While the results suggest that the influence of education works mainly through increased opportunities, to a lesser extent the effect seems to have an impact through having children (decreased care needs) and through value patterns. This supports arguments from Azam, Abu Nasr & Lorfing (1985), Hirschman & Aghajanian (1980), Lincove (2008), and Olmsted (2003), all of whom do not (solely) focus on the direct opportunities effect. However, to my knowledge, no study on Muslim countries has empirically tried to break down the total effect of education. My study suggests that by far the largest part of the effect runs through opportunities, though I have not been able to optimally filter out values.

A last debate in the literature is which kind of employment is fostered by education (Calvès & Schoumaker, 2004; Hirschman & Aghajanian, 1980; Kuepie, Nordman & Roubaud, 2009), and this suggests that educated people may not have the same payoffs everywhere. While some references to this are found in the literature (see Abu Lughod, 1998; Acar, 2006; Jansen, 2006; Miles, 2002; Pampel & Tanaka, 1986; Rani & Schmid, 2008; Tansel, 2002), hardly any comparative work on it exists. In theorising and testing this context-dependency, I have shown the impact of local norms and of the demand and supply balance on the payoff of education (see Section 11.2.3). For instance, a scarcity of higher-educated people makes the difference between secondary and primary education salient, decreasing the gap between tertiary- and secondary-educated women. Also, primary education is less beneficial in more traditional areas, because there primary-educated women are held back most by traditional norms. Nevertheless, my contextual analyses of education's effects are inconclusive and the results ask for more theoretical and empirical work.

Generally speaking, the pivotal role of education implies the significance of understanding women's educational participation. Applying the multilevel NOV approach to primary, secondary, and tertiary educational participation might be helpful here (cf. Huisman, 2011; Huisman & Smits, 2009).

11.5.4 GLOBALISATION

The literature on globalisation and women's employment can be roughly divided in two groups: first we have the 'optimists', who basically suggest that economic and cultural globalisation has a largely positive effect on women's employment (e.g. Black & Rainerd, 2004; Gray, Kittilson & Sandholtz, 2006; Meyer, 2003; Richards & Gelleny, 2007; Villarreal & Yu, 2007).[200] It will be clear that the multiplicity of influences as discussed and shown in the previous chapters does problematise such a conclusion. Regarding the more economically oriented arguments, the negative effects of privatisation are the most striking example of this. In addition, no general effect of FDI was found, and my results even suggest that effects found in other studies might be spurious, due to ignoring the cultural dimension: companies invest in countries where women's position is already relatively good and not in the more Islamist states. Moreover, when the cultural dimension is studied, it is regularly thought of as a positive force of Westernisation (for instance through tourism), but some people in developing countries rather see it as threatening, which sometimes results in major backlash effects, either through reifying the cultural self in

gender-unequal terms or through violence against 'tokens of the West', such as tourism. In the long term, the economic development and changing cultural norms might have positive effects, but important and large groups of women see their chances on employment being diminished in the short term. These 'losers of globalisation' should not be ignored (as the revolutions in Egypt and Tunisia also suggest).

Whereas the first group of studies mainly draws from (cross-sectional) statistical analyses, the second is more oriented towards the in-depth case study of particular countries. These can be labelled 'critical studies', because they focus on laying bare the contradictory tendencies and trends within the overall process of globalisation (e.g. Assaad, 2003; Doumato & Posusney, 2003; Moghadam, 1998, 2003, 2007; Nassar, 2003; Murphy, 2003). My theoretical approach falls mostly in line with this literature and supports the need for unpacking the influences of globalisation. However, my comparative statistical approach is positioned more in-between the two approaches. In combination with the multilevel NOV approach this has drawn attention to sub-national differences, which are mostly ignored in the case studies. The studies are often based on solid analyses with a holistic take on globalisation – thus including its cultural, economic, and political dimensions – and an aggregate country-level focus. By including the district-level, I have been able to study the dynamics behind the impact of globalisation and show that the political-economic and political-cultural effects of economic globalisation are translated through the local labour market structure and thus depend on the latter. Therefore, we should first know which jobs are considered suitable for women in a certain context before we can assess globalisation's influence, and again this means that globalisation transforms (in) equalities among women within a country.

11.5.5 PATRIARCHY

Patriarchy and similar concepts are often used to describe the gender relationships in Muslim countries, or more particularly the Middle East and North Africa. In most cases a prefix is used to designate that it only applies to that group of countries: 'Muslim patriarchy' (see Hatem, 1987; Mernissi, 1975), 'classic patriarchy' (Kandiyoti, 1988), 'Islamic gender regime' (Metcalfe, 2011), or 'traditional gender contract' (Moghadam, 1998). Overall, this creates the image that there is an overarching Islamic system of patriarchy, which is the pure form of patriarchy ('traditional', 'classic'), based on male breadwinner/female homemaker roles and the patrilocally extended household (Kandiyoti, 1988; Moghadam, 1998). It seems a contextual constant. However, my results suggest that household structures, the conception of care, and women's economic roles differ considerably across Muslim countries, as was illustrated by the strongly different effects of household configurations. For instance, the presence of elderly people only influenced women's employment negatively in the Greater Middle East, and the positive effect of the number of adult women in a household was much stronger in Central and Southeast Asia than in the Greater Middle East and Sub-Saharan Africa.

A better look at the literature shows that this diversity and context-dependency are to some extent found in the discussion of patriarchy as well. Moghadam's notion of a gender contract is "subject to modification and renegotiation" (Moghadam, 1998: 9), Kandiyoti says that "patriarchal bargains are not timeless or immutable entities" (Kandiyoti, 1988: 275), and Walby explicitly focuses on the dynamics and changes of patriarchy or gender regimes (Walby, 1996, 2009). Different regimes among Muslim countries are also identified. Kandiyoti (1988), for instance, does this on a geographical basis, and Syed (2008) on a theoretical-religious one. Simultaneously, these studies make use of ideal types – Kandiyoti uses this term herself (1988: 275), but it also applies to Moghadam (1998) and Syed (2008). These ideal types tend to have a life of their own and become 'empirical realities'. Thus the concept might not be inherently essentialist – a critique on the concept of patriarchy (Walby, 1996; 2009) – but there is a considerable risk that the use of these concepts nonetheless leads to essentialism.

While I started from a kind of geographical ideal-type approach as well, the analyses of context-dependency have led me to start thinking about different underlying axes that differentiate the gender relations in different societies. By not talking about a specific contract, but about these axes, it becomes far easier to see patriarchy as a fluid reality that is constantly

201 This echoes a remark Waite already made in 1978 on the topic women in the United States, but it hardly applied to micro-level research on women's employment in Muslim countries: "These attitudes only influence the market choices of married woman and perhaps only those of married women with children at home. Clearly the work decisions of a woman who feels that mothers should not work will not be influenced by her beliefs if she has no children." (314).

renegotiated. Based on the literature and my empirical research I have distinguished at least three axes: the role of women (in terms of care and income provision), who and what is part of the household care tasks (e.g. only people related by bloodline, regular cleaning tasks),[201] and whether the role of men is confined to economic tasks (see also Habib, Nuwayhid & Yeretzian, 2006). The position of a society along these axes identifies a value system that underlies institutionalised norms and that, for instance, informs which household configurations have an impact. Such a conceptualisation of the patriarchy variable helps to explain both differences between and within societies. To further develop and test ideas such as those presented in this thesis, the major challenge now is to collect comparative data for different countries and regions on the separate dimensions of patriarchy.

11.6 POLICY IMPLICATIONS

This study is not the first to point at creating jobs, increasing education, and changing norms as ways to increase women's employment. However, the messages of multiplicity and context-dependency refine these policy recommendations and one of the most important contributions of this thesis is, arguably, to warn about adverse (side-) effects of policymaking. With that in mind, I will discuss three characteristic examples that illustrate why complex interrelatedness should be on policymakers' minds.

Firstly, it is clear that having (young) children prevents women from entering the labour market. One obvious way of reducing women's care burden then lies in providing childcare facilities or arrangements. However, it should be considered who will benefit from such facilities, and whether these women are the ones the policymaker was targeting. For women in an environment where the care-role norm does not primarily focus on caring for children, but also on general household management – cleaning, cooking and so on and so forth-, childcare facilities hardly relieve the care burden of women. This means that the women in the most restricted situation will benefit least from additional facilities. Women with children living in an area where care roles have a smaller scope, on the other hand, might benefit from childcare arrangements. For women who also have to take care of elderly people (which affects employment negatively in the Middle East), the same reasoning can be applied on elder care facilities.

Secondly, the presence of labour demand is of course important in creating opportunities for women. In line with other research it was shown that effectively to create jobs, these jobs have to fit the idea of what kind of labour is suitable for women, and simultaneously match women's 'preferences'. The service sector might be feminised, as well as parts of the manufacturing industry, but it seems that what particular parts are deemed suitable depends on the local context. Also, circumstances such as how to get to work and working with or without male colleagues might play a role in women choosing home-based labour or not being employed at all. These preferences, which are not directly related to being employed, determine which group is (not) reached by creating a labour demand.

Thirdly, furthering education seems an important way to empower women in finding a job. It even seems that higher-educated women are sometimes preferred over lower-educated men, and being educated thus does not only increase the chances of a woman vis-à-vis other women, but also against men. Moreover, it turns out to be important in what context which educational level is obtained. Investing in women's tertiary education is most effective in a place where there are not enough men with tertiary education to fill all the vacancies. There women can better compete with (lower-educated) men. Primary education seems to pay off mainly in areas with less traditional norms. Investing in primary education facilities in more traditional areas should be followed up by good secondary and tertiary educational facilities in order to have effect on women's employment.

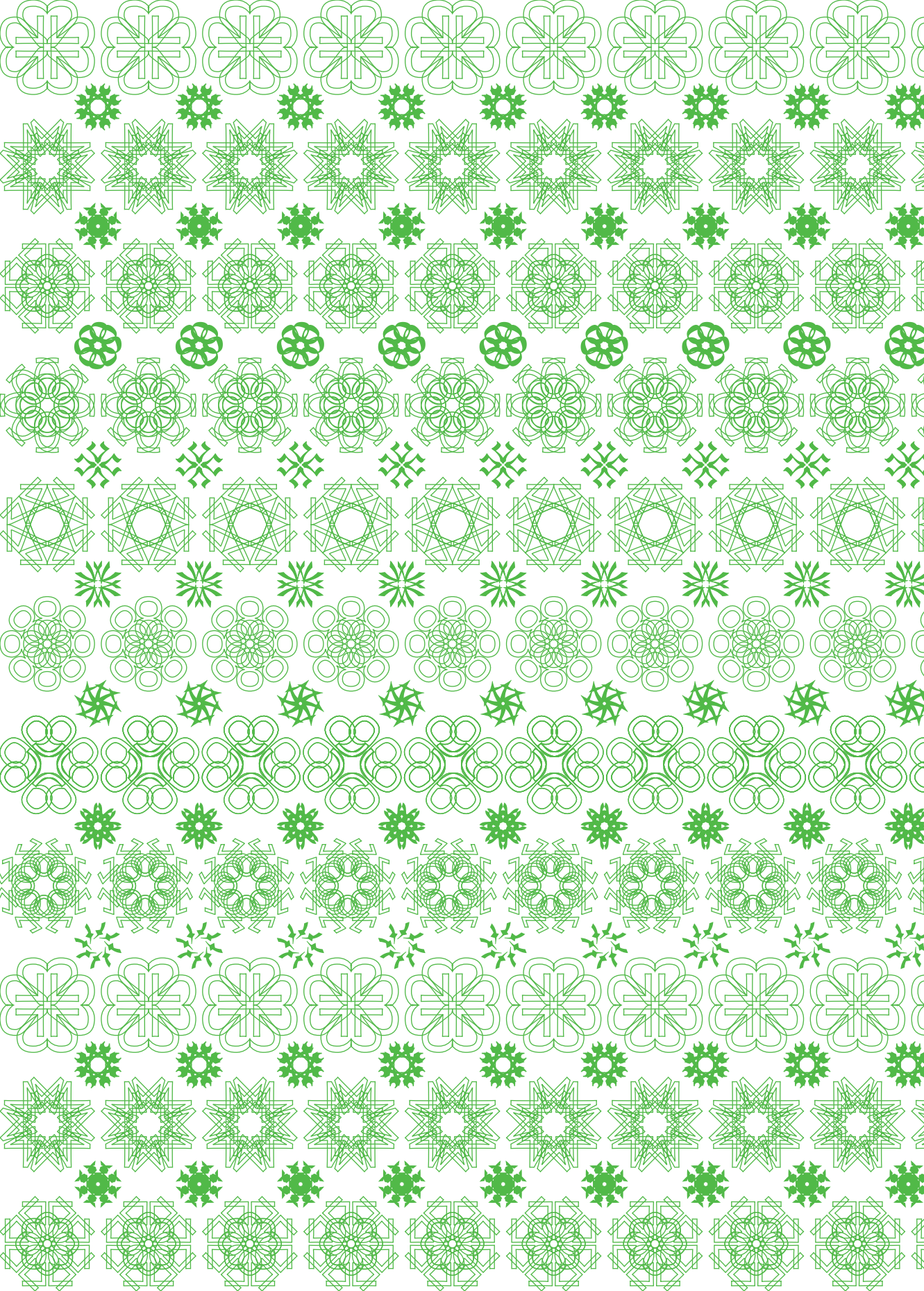
Each of these examples points to a larger mechanism that is often not taken into account in regularly thought-of policy recommendations. Because of the interrelatedness of each factor to its environment, different groups of women are affected differently by one and the same change. Often this means that the gap in employment between the women who already are the worst off and the others widens. Furthermore, the interrelatedness also suggests that policies not directly related to women's employment (e.g. elder care, socio-economic safety nets, public transport)

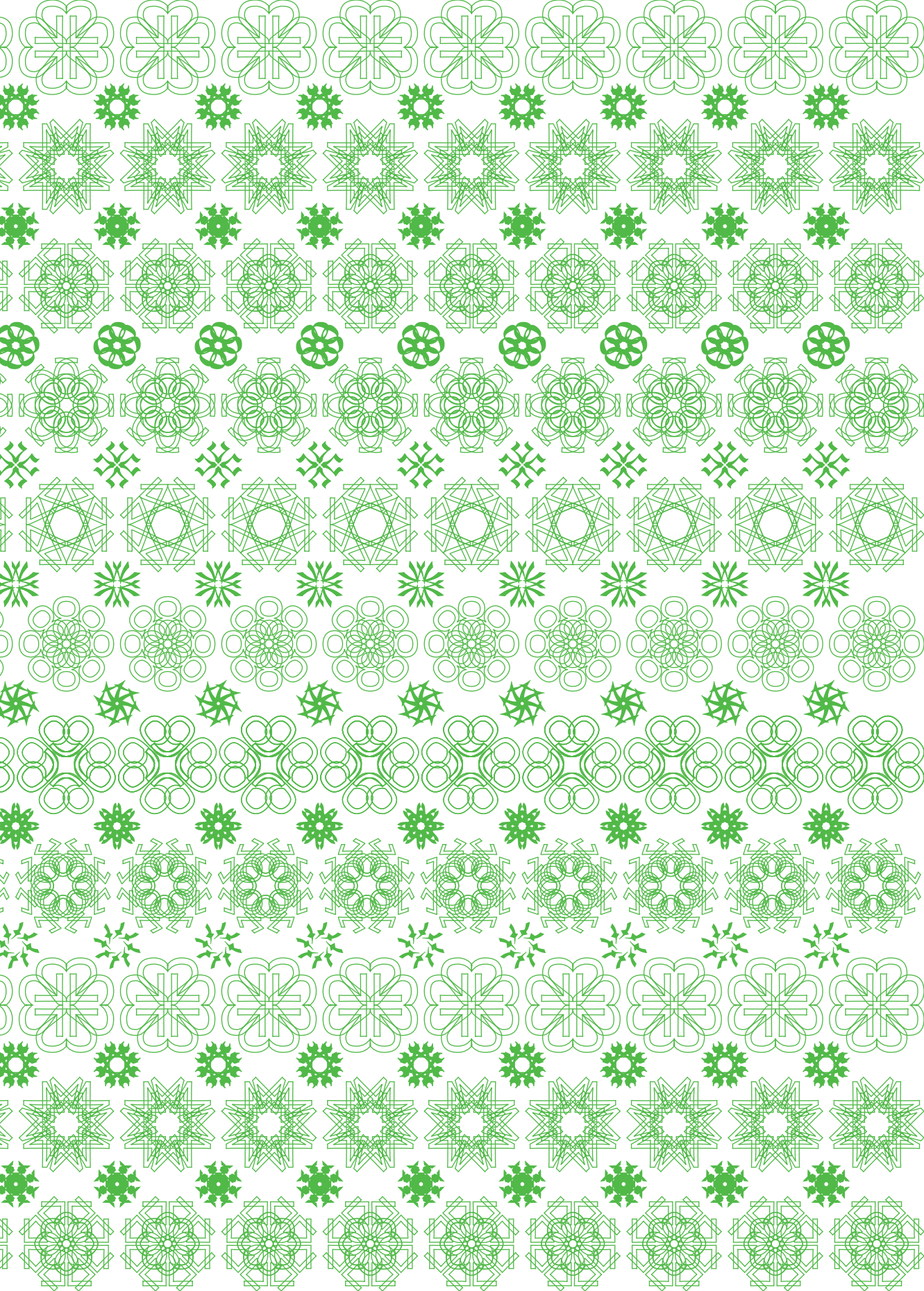
can have all kinds of negative (or positive) side-effects on employment. So the main message here is that policy plans have to be thought through from a holistic perspective considering complex interrelatedness and inequalities, as can be done through, for instance, gender impact assessments (e.g. Verloo, Van der Vleuten, Jansen & Acar, 2006).

11.7 CLOSING NOTES

The focus in this thesis has been on Muslim countries. Using this focus and label might be considered a discursive practice that brings into existence exactly what it decries: the existence or idea of a separate block or culture. At the same time, I have shown that the internal diversity is enormous, that some (macro- and micro-level) influences on women's employment seem to be important across the world, while others highly differ within the region. By taking this collection of countries and deconstructing the unity in which it is often portrayed, without letting go of the scientific goal of finding general patterns, I believe the overall balance of this study to lean toward gaining a better understanding of women's position in Muslim countries, and to breaking down stereotypes and simplifications more than reinforcing them.

Khadija the Pure (amongst others) showed that Muslim women can fulfil prominent economic roles and have a high degree of empowerment. While her legacy might serve as an example for many women in Muslim countries, showing that women can have their own income and play an active role on the labour market, it does not mean that we know *which*, *why*, and *when* women obtain such a position. The research I have done for this thesis hopefully contributes to a better understanding of the underlying processes and thus may help women to follow Khadija's lead and empower themselves.





Appendices

Appendix. 2.1 A systematic overview of the literature on women's employment in Muslim countries by level of analysis

Level	Civilisation	Macro	Micro
Predominant unit of comparison	Groups of countries sharing a culture of religion	Countries and sometimes administrative units within a country	Individuals, sometimes placed within household context
Explained phenomenon	"the low employment figures of women in the Muslim civilisation"	Levels of and developments in women's employment	Which women are employed and which women are not
Main explanatory factor(s)	Islam (culture)	Economic, political and cultural	Education, having children and a range of other factors
Major contribution(s)	–Drawing attention to women's employment in the MENA and other Muslim countries as an unexplored field of study.	– Important knowledge of specific countries – Provides macro-level hypotheses	– Insight in the differences within a country – Identifies important household and individual influences
Theoretical shortcoming(s)	– A clear causal mechanism is lacking: what is the ideology/value and through what process does it influence employment.	– It is unclear whether macro-level factors work through micro-level effects, next to them, or in stead of them.	– Ideas about how effects differ by context are lacking.
Empirical shortcoming(s)	– Hypergeneralisation veils internal dynamics and plurality	– Few systemic tests of macro-level hypotheses exist. – It is unclear which factors have the most impact.	– It is unclear how factors interrelate, e.g. which factors are most important – It is not tested whether effects differ by country/context.

Appendix 4.1 Countries and surveys

Country	Year	Number of districts	Number of women[1]	Response rate household survey	Response rate women's survey	Survey Source	Population size[2]	Female population 15–64
Algeria	2002	47	33,796	93.5	97.4	PAPFam	32,277,942	9,950,315
Azerbaijan	2006	9	8,444	97.8	97.6	DHS	7,961,619	2,706,275
Bangladesh[3]	2007	6	10,996	95.5	98.4	DHS	150,448,339	46,712,687
Burkina Faso	2003	14	12,477	99.4	96.3	DHS	13,228,460	3,455,817
Chad	2004	9	6,085	99.4	97.2	DHS	9,538,544	2,459,796
Djibouti[3]	2002	5	6,689	n.a.	n.a.	PAPFam	472,810	122,209
Egypt[3]	2005	26	19,474	98.9	99.4	DHS	77,505,756	23,972,216
Eritrea	2002	6	8,754	98.7	96.2	DHS	4,465,651	1,213,313
Guinea	2005	8	7,954	99.2	97.2	DHS	9,467,866	2,486,300
Indonesia[3]	2007	33	32,895	99.0	98.3	DHS	234,693,997	76,731,481
Jordan[3]	2007	12	10,876	99.0	97.6	DHS	6,053,193	1,777,361
Kazakhstan	1999	6	4,800	98.5	96.7	DHS	16,824,825	5,580,271
Kyrgyz Republic	1997	7	3,848	95.0	95.0	DHS	4,512,809	1,321,774
Lebanon	2004	6	6,556	n.a.	n.a.	PAPFam	3,777,218	1,305,339
Malaysia	2000	15	10,500	n.a.	n.a.	IPUM	21,793,293	6,642073
Mali	2006	9	14,583	98.8	96.6	DHS	11,716,829	2,910,097
Mauritania	2001	13	7,728	98.7	96.5	DHS	2,747,312	718,883
Morocco	2004	15	16,798	98.8	96.3	PAPFam/DHS	32,209,101	10,112,060
Niger	2006	8	9,223	98.7	96.4	DHS	12,525,094	3,083,522
Nigeria	2008	37	33,385	98.6	95.4	DHS	135,031,164	36,277,038
Pakistan[3]	2007	4	10,023	97.7	94.5	DHS	164,741,924	47,327,161
Senegal	2005	11	14,602	98.5	93.7	DHS	11,126,832	3,122,854
Sierra Leone	2008	4	7,374	93.3	94.0	DHS	6,294,774	1,708,840
Syria	2001	14	12,455	95.0	98.9	PAPFam	16,728,808	4,644,870
Tunisia	2001	24	8,829	90.5	92.3	PAPFam	9,705,102	3,161,596
Turkey[3]	2003	12	8,075	92.9	95.6	DHS[5]	68,109,469	22,243,477
Yemen	2003	20	20,180	n.a.	n.a.	PAPFam	19,349,881	4,778,034
Zanzibar	2004	3	1,365	98.8[4]	97.3[4]	DHS	1,089,540[6]	292,869[7]
Total		383	348,764				1,084,398,152	326,818,528

Notes: (1) These numbers refer to the total number of women in the surveys between 15 and 49 years of age; (2) Source: CIA WFB respective years; (3) only ever married women; (4) These response rates refer to the entire survey for Tanzania; (5) DHS was not fully involved in this survey, but provided limited technical assistance on the review and formatting of the final report; (6) http://www.tanzania.go.tz/smz/ocgs/documents/Economic%20Survey/Economic%20Survey%20table%20.doc; (7) percentage of women 15–64 based on cia wfb percentage for whole of Tanzania.

Appendix 4.2 Factor analysis of district-level wealth items

Item	Factor loading
Electricity	0.941
TV	0.883
Refrigerator	0.941
Car	0.487
Telephone	0.741
Running water	0.766
Eigenvalue	4.198
% of Variance	70.0
KMO	0.709
Bartlett's (sig)	0.000

Source: DDW – district-level aggregates; N=322; Note: Factor loadings with a weight less than 0.35 are not included in the table. Principal Axis Factoring with oblique rotation was used (since only one factor was derived from the data, the rotation method becomes irrelevant).

Appendix 4.3 Factor analysis of district-level traditionalism norm items

Item	Factor loading
Age of woman at birth first child	0.726
Intracouple age difference	0.867
Household size	0.351
Polygynous household	0.718
Eigenvalue	2.347
% of Variance	58.7
KMO	0.738
Bartlett's (sig)	0.000

Source: DDW – district-level aggregates; N=322; Note: Factor loadings with a weight less than 0.35 are not included in the table. Principal Axis Factoring with oblique rotation was used (since only one factor was derived from the data, the rotation method becomes irrelevant).

Appendix 5.1 Women's employment by district

Rank	Country	District	Employment %
1	Nigeria	Osun	86.4
2	Nigeria	Oyo	75.8
3	Nigeria	Lagos	73.2
4	Kyrgyz republic	Bishkek	70.0
5	Nigeria	Akwa Ibom	65.5
6	Nigeria	Ekiti	65.4
7	Burkina Faso	Ouagadougou	64.6
8	Nigeria	Kano	63.9
9	Kazakhstan	Almaty city	63.5
10	Nigeria	Ogun	61.3
11	Guinea	Conakry	59.1
12	Nigeria	Sokoto	59.0
13	Malaysia	Kuala Lumpur Federal Territory	58.9
14	Mali	Bamako	58.7
15	Malaysia	Pulau Pinang	57.1
16	Nigeria	Bauchi	56.5
17	Nigeria	Abuja	54.9
18	Malaysia	Selangor	54.6
19	Nigeria	Edo	53.3
20	Nigeria	Kogi	53.1
21	Kazakhstan	East region	53.0
22	Tunisia	Monastir	52.9
23	Indonesia	DI Yogyakarta	52.2
24	Kazakhstan	Central region	51.6
25	Senegal	Dakar	51.5
26	Malaysia	Melaka	50.9
27	Zanzibar	Town west	50.6
28	Chad	N Djam,na	50.5
29	Nigeria	Kwara	49.9
30	Nigeria	Abia	49.1
31	Indonesia	Bali	48.7
32	Nigeria	Imo	48.5
33	Nigeria	Jigawa	48.5
34	Malaysia	Johor	48.2
35	Nigeria	Niger	48.2
36	Malaysia	Labuan Federal Territory	48.0
37	Nigeria	Delta	47.0
38	Nigeria	Katsina	46.6
39	Indonesia	DKI Jakarta	46.4
40	Kyrgyz republic	Chuiskaya	45.7
41	Tunisia	Ariana	45.3
42	Tunisia	Tunis	45.2
43	Kazakhstan	North region	44.9
44	Kazakhstan	West region	42.9
45	Tunisia	Sousse	42.8
46	Indonesia	Central Java	41.9
47	Nigeria	Kebbi	41.7
48	Mauritania	Nouakchott	41.7
49	Malaysia	Kedah	41.5
50	Malaysia	Perak	41.2
51	Kyrgyz republic	Narynskaya	40.8
52	Nigeria	Zamfara	40.4
53	Malaysia	Perlis	40.3
54	Kyrgyz republic	Issyk-Kulskaya	39.8
55	Kyrgyz republic	Oshskaya	39.8
56	Kazakhstan	South region	39.4
57	Senegal	Thies	39.1
58	Lebanon	Beirut	38.3
59	Nigeria	Anambra	37.8
60	Nigeria	Rivers	37.8
61	Tunisia	Ben Arous	37.6
62	Nigeria	Adamawa	37.1
63	Zanzibar	South	36.8
64	Nigeria	Yobe	36.7
65	Mali	Tombouctou	36.2
66	Malaysia	Negeri Sembilan	36.2
67	Guinea	Kindia	36.1
68	Senegal	Ziguinchor	36.0
69	Sierra Leone	Western region	35.9
70	Niger	Niamey	35.6
71	Egypt	North Sinai	35.5
72	Guinea	Kankan	35.3
73	Mali	Segou	34.8
74	Morocco	Grand-Casablanca	34.7
75	Niger	Agadez	34.5
76	Senegal	Diourbel	34.4
77	Niger	Ebonyi	34.2
78	Nigeria	Enugu	34.1
79	Indonesia	East Java	34.1
80	Eritrea	Maekel	34.0
81	Malaysia	Sarawak	33.5
82	Tunisia	Zaghouan	33.5
83	Guinea	Boké	33.1
84	Indonesia	South Kalimantan	33.1
85	Kyrgyz Republic	Dzhelal-Abadskaya	33.0
86	Indonesia	East Kalimantan	33.0
87	Tunisia	Nabeul	32.8
88	Niger	Dosso	32.6
89	Mali	Mopti	32.4
90	Kyrgyz republic	Talasskaya	32.2
91	Indonesia	Kep Bangka Belitung	32.2
92	Guinea	Faranah	31.7
93	Indonesia	West Sumatra	31.4
94	Lebanon	Mount Lebanon	31.2
95	Nigeria	Taraba	30.8
96	Turkey	Istanbul	30.7
97	Nigeria	Kaduna	30.5
98	Indonesia	Maluka Utara	30.1
99	Nigeria	Gombe	29.9

Appendix 5.1 Continued

Rank	Country	District	Employment %
100	Nigeria	Bayelsa	29.8
101	Morocco	Rabat-Sale-Zem-mour-Zaer	29.7
102	Azerbaijan	Baku	29.4
103	Malaysia	Terengganu	29.3
104	Egypt	Port Said	29.3
105	Tunisia	Manouba	29.2
106	Syria	Al-Latakia	29.2
107	Malaysia	Kelantan	29.1
108	Malaysia	Pahang	28.9
109	Indonesia	North Sumatra	28.9
110	Indonesia	West Nusa Tenggara	28.7
111	Senegal	Saint Louis	28.7
112	Indonesia	Banten	28.6
113	Indonesia	East Nusa Tenggara	27.9
114	Indonesia	Lampung	27.9
115	Indonesia	Maluku	27.6
116	Chad	Moyen Chari	27.3
117	Guinea	N Zérékoré	27.1
118	Indonesia	North Sulawesi	26.9
119	Indonesia	Central Kalimantan	26.8
120	Niger	Maradi	26.7
121	Indonesia	Riau	26.4
122	Mauritania	Hodh Charghi	26.4
123	Indonesia	West Java	26.2
124	Mauritania	Nouadhibou	25.9
125	Malaysia	Sabah	25.7
126	Senegal	Fatick	25.6
127	Burkina Faso	Hauts Bassins	25.5
128	Syria	Al-Swida	25.4
129	Indonesia	South Sumatra	25.2
130	Turkey	Aegean	25.2
131	Zanzibar	North	25.2
132	Azerbaijan	Absheron	25.0
133	Mali	Koulikoro	24.8
134	Egypt	Cairo	24.6
135	Egypt	Suez	24.5
136	Indonesia	Sulawesi Barat	24.4
137	Indonesia	Bengkulu	24.0
138	Nigeria	Ondo	23.9
139	Eritrea	Debubawi Keih Bahri	23.7
140	Indonesia	Bangka Belitung	23.7
141	Indonesia	Central Sulawesi	23.2
142	Tunisia	Sfax	23.2
143	Azerbaijan	Shaki Zaqatala	23.2
144	Nigeria	Borno	22.9
145	Tunisia	Bizerte	22.9
146	Senegal	Kaolack	22.8
147	Nigeria	Cross River	22.8
148	Egypt	Menoufia	22.7
149	Turkey	East Marmara	22.4
150	Mali	Sikasso	22.4
151	Indonesia	Gorontalo	22.3
152	Burkina Faso	Sahel	22.1
153	Burkina Faso	Centre (sans Ouaga-dougou)	22.0
154	Morocco	Fes-Boulemane	22.0
155	Indonesia	Southeast Sulawesi	21.9
156	Indonesia	DI Aceh	21.9
157	Algeria	Alger	21.7
158	Nigeria	Nasarawa	21.3
159	Tunisia	Gabes	21.2
160	Jordan	Karak	21.1
161	Indonesia	South Sulawesi	21.1
162	Burkina Faso	Sud-Ouest	21.1
163	Azerbaijan	Yukhari Karabakh	20.9
164	Egypt	Damietta	20.8
165	Chad	Centre Est	20.7
166	Senegal	Louga	20.7
167	Egypt	New Valley	20.7
168	Lebanon	South	20.6
169	Niger	Tahoua	20.5
170	Mauritania	Gorgol	20.5
171	Burkina Faso	Cascades	20.4
172	Lebanon	Nabatieh	20.4
173	Niger	Zinder & Diffa	20.1
174	Egypt	Ismailia	20.0
175	Burkina Faso	Centre-Ouest	20.0
176	Niger	Diffa	19.9
177	Egypt	Kalyubia	19.8
178	Senegal	Tambacounda	19.8
179	Senegal	Kolda	19.7
180	Lebanon	North	19.7
181	Egypt	South Sinai	19.7
182	Egypt	Gharbia	19.6
183	Tunisia	Tozeur	19.5
184	Tunisia	Mahdia	19.5
185	Syria	Damascus	19.5
186	Syria	Tartous	19.5
187	Turkey	West Marmara	19.5
188	Turkey	West Anatolia	19.3
189	Egypt	Alexandria	19.1
190	Indonesia	Papua Barat	18.9
191	Indonesia	Jambi	18.8
192	Pakistan	Sindh	18.6
193	Burkina Faso	Centre-Est	18.6
194	Azerbaijan	Ganja Gazakh	18.5
195	Egypt	Dakahlia	18.3
196	Djibouti	Ali Sabieh	18.3
197	Yemen	Aden	18.3
198	Jordan	Madaba	18.2

Appendix 5.1 Continued

Rank	Country	District	Employment %
199	Chad	Logone Occidental	18.2
200	Niger	Tillaberi (without Niamey)	18.1
201	Lebanon	Bekaa	17.6
202	Senegal	Matam	17.4
203	Mauritania	Inchiri	17.3
204	Tunisia	Kairouan	17.1
205	Turkey	Mediterranean	17.1
206	Pakistan	Balochistan	17.0
207	Nigeria	Plateau	16.8
208	Morocco	Tanger-Tetouan	16.7
209	Guinea	Mamou	16.7
210	Egypt	Red Sea	16.7
211	Tunisia	Balqa	16.5
212	Algeria	Annaba	16.5
213	Guinea	Labé	16.4
214	Mali	Gao	16.1
215	Jordan	Ma an	16.1
216	Mauritania	Tiris-Zemmour	15.8
217	Azerbaijan	Dakhlik Shirvan	15.8
218	Mauritania	Adrar	15.7
219	Indonesia	West Kalimantan	15.7
220	Tunisia	Kebili	15.7
221	Tunisia	Gafsa	15.5
222	Egypt	Sharkia	15.5
223	Nigeria	Benue	15.5
224	Burkina Faso	Egypt - Giza	15.4
225	Tunisia	Kasserine	15.1
226	Mauritania	Assaba	15.1
227	Jordan	Ajlun	14.9
228	Tunisia	Beja	14.9
229	Mali	Kayes	14.8
230	Tunisia	Sidi Bouzid	14.8
231	Indonesia	Papua	14.7
232	Algeria	Constantine	14.7
233	Mauritania	Guidimagha	14.7
234	Jordan	Tafiela	14.5
235	Algeria	Blida	14.4
236	Morocco	Doukkala-Abda	14.4
237	Turkey	West Black Sea	14.3
238	Pakistan	Punjab	14.2
239	Tunisia	Medinine	14.2
240	Syria	Homs	14.1
241	Azerbaijan	Aran	14.0
242	Chad	B.E.T.	14.0
243	Syria	rural Damascus	14.0
244	Bangladesh	Khulna	14.0
245	Turkey	Central Anatolia	14.0
246	Burkina Faso	Centre-Sud	13.8
247	Sierra Leone	southern region	13.4
248	Egypt	Beni Suef	13.4
249	Banladesh	Dhaka - Upper Bangladesh	13.4
250	Bangladesh	Rajshahi	13.3
251	Algeria	Béchar	13.3
252	Mauritania	Trarza	13.3
253	Chad	Mayo Kebbi	13.3
254	Morocco	Marrakech-Tensift-Al Haouz	13.1
255	Algeria	Oran	13.1
256	Egypt	Kafr El-Sheikh	12.9
257	Burkina Faso	Plateau Central	12.8
258	Morocco	Gharb-Chrarda-Bni Hssen	12.7
259	Morocco	Souss-Massa-Draa	12.4
260	Algeria	El Bayadh	12.3
261	Algeria	Tlemcen	12.1
262	Tunisia	Siliana	12.1
263	Jordan	Amman	12.0
264	Eritrea	Debub	12.0
265	Turkey	East Black Sea	11.7
266	Syria	Hamaa	11.6
267	Burkina Faso	Boucle de Mouhoun	11.5
268	Jordan	Mafraq	11.5
269	Tunisia	Tatouine	11.4
270	Mauritania	Tagant	11.4
271	Jordan	Irbid	11.3
272	Syria	Del El Zour	11.3
273	Egypt	Fayoum	11.3
274	Algeria	Aïn Témouchent	11.2
275	Egypt	Behera	11.2
276	Algeria	Tamanghasset	11.1
277	Morocco	Laayoune-Boujdou-sakia Al Hamra	11.0
278	Burkina Faso	Centre-Nord	11.0
279	Algeria	Sidi Bel Abbès	10.9
280	Egypt	Aswan	10.9
281	Morocco	Chaouia-Ouardigha	10.9
282	Morocco	Oriental	10.9
283	Morocco	Meknes-Tafilalet	10.9
284	Algeria	Illizi	10.8
285	Jordan	Aqaba	10.8
286	Algeria	Guelma	10.6
287	Azerbaijan	Guba Khachmaz	10.5
288	Jordan	Jarash	10.4
289	Algeria	Boumerdès	10.3
290	Tunisia	Kef	10.2
291	Egypt	Menya	10.1
292	Algeria	Ouargla	10.0
293	Syria	Halab	10.0
294	Algeria	Saïda	9.9
295	Turkey	Northeast Anatolia	9.9

Appendix 5.1 Continued

Rank	Country	District	Employment %
296	Chad	Chari Barguirmi	9.8
297	Eritrea	Gash-Barka	9.7
298	Mauritania	Hodh Gharbi	9.7
299	Syria	Edlab	9.4
300	Algeria	El Tarf	9.2
301	Egypt	Qena	9.2
302	Tunisia	Jendouba	9.1
303	Yemen	Al-Amana	9.0
304	Bangladesh	Barisal	9.0
305	Algeria	Tiaret	9.0
306	Algeria	Tipaza	8.9
307	Algeria	Ghardaïa	8.9
308	Bangladesh	Chittagong	8.9
309	Djibouti	Djibouti	8.9
310	Algeria	Batna	8.8
311	Bangladesh	Sylhet	8.7
312	Sierra Leone	Northern region	8.4
313	Eritrea	Semenawi Keih Bahri	8.3
314	Algeria	Jijel	8.2
315	Sierra Leone	Eastern region	8.2
316	Syria	Al-Qunitara	8.0
317	Turkey	Central East Anatolia	7.9
318	Algeria	Chlef	7.9
319	Algeria	Tizi Ouzou	7.7
320	Syria	Al-Hasaka	7.7
321	Jordan	Zarqa	7.7
322	Algeria	Skikda	7.7
323	Morocco	Guelmim-Es-smara	7.7
324	Syria	Daraa	7.4
325	Pakistan	NWFP (North West Frontier Province	7.3
326	Algeria	Biskra	7.3
327	Chad	Ouaddai Est	7.1
328	Algeria	Khenchela	7.0
329	Algeria	Naama	7.0
330	Egypt	Souhag	7.0
331	Turkey	Southeast Anatolia	6.6
332	Egypt	Assuit	6.5
333	Algeria -	Laghouat	6.4
334	Azerbaijan	Lankaran	6.4
335	Yemen	Al-Hodeidha	6.4
336	Algeria	Mascara	6.3
337	Eritrea	Anseba	6.1
338	Mauritania	Brakna	6.0
339	Yemen	Marib	6.0
340	Algeria	Oum el Bouaghi	5.9
341	Djibouti	Dikhil	5.8
342	Algeria	Souk Ahras	5.7
343	Morocco	Tadla-Azilal	5.7
344	Morocco	Taza-Al Hoceima-Taounate	5.6
345	Syria	Al-Raka	5.5
346	Yemen	Yemen - Hadramout	5.5
347	Yemen	Yemen - Abyan	5.4
348	Algeria	Sétif	5.3
349	Algeria	Béjaïa	5.2
350	Algeria	Relizane	5.1
351	Algeria	Médéa	5.1
352	Algeria	Msila	5.1
353	Algeria	Djelfa	5.1
354	Algeria	Mostaganem	5.0
355	Algeria	Tébessa	4.9
356	Mali	Kidal	4.7
357	Algeria	Bouira	4.7
358	Algeria	Adrar	4.6
359	Egypt	Matroh	4.4
360	Algeria	El Oued	4.3
361	Burkina Faso	Nord	4.2
362	Algeria	Mila	4.1
363	Yemen	Lahej	3.9
364	Chad	Bar Azoum	3.8
365	Algeria	Aïn Defla	3.5
366	Yemen	Al-Jawf	3.1
367	Yemen	Al-Dhalih	3.0
368	Burkina Faso	Est	3.0
369	Yemen	Taiz	2.7
360	Djibouti	Milieu Nomade	2.7
371	Yemen	Shebwa	2.3
372	Yemen	Sa adah	2.2
373	Yemen	Ibb	1.9
374	Algeria	Tissemsilt	1.8
375	Yemen	Al-Mahweet	1.7
376	Yemen	Omran	1.6
377	Djibouti	Tadjourah & Obock	1.6
378	Yemen	Al-Beidha	1.6
379	Yemen	Sana a	1.2
380	Algeria	Bordj Bou Arréridj	1.2
381	Yemen	Dhamar	1.1
382	Yemen	Hajjah	0.9
383	Yemen	Al-Maharah	0.0

Appendix 6.1 Coefficients of Multivariate four-level logistic regression analyses with the logged odds of being non-agriculturally employed as dependent variable, using different estimation techniques

Variable	range	MCMC (started from weighted IGLS) Log odds		s.e.	IGLS (weighted) Log odds		s.e.	Fixed effects model (weighted) Log odds		s.e.
Micro level										
Children (ref = no children)										
1or 2, older than 5	Dummy	-0.026		0.024	-0.024		0.021	-0.014		0.015
3 or 4, older than 5	Dummy	-0.214	***	0.039	-0.143	***	0.036	-0.133	***	0.028
5 or more, older than 5	Dummy	-0.542	***	0.148	-0.399	**	0.148	-0.481	***	0.115
1 or 2, at least 1 younger than 6	Dummy	-0.180	***	0.021	-0.155	***	0.020	-0.205	***	0.015
3 or 4, at least 1 younger than 6	Dummy	-0.281	***	0.027	-0.232	***	0.024	-0.269	***	0.018
5 or more, at least 1 younger than 6	Dummy	-0.375	***	0.037	-0.241	***	0.036	-0.253	***	0.028
Partner present (ref = no partner)	Dummy	-0.833	***	0.024	-0.509	***	0.022	-0.622	***	0.017
Presence male breadwinner (ref = no)	Dummy	-0.203	***	0.018	-0.119	***	0.019	-0.114	***	0.027
Education (ref = less than primary completed)										
primary completed, secondary not	Dummy	0.426	***	0.020	0.200	***	0.019	0.138	***	0.014
secondary completed, no tertiary	Dummy	1.108	***	0.027	0.549	***	0.025	0.463	***	0.018
at least some tertiary	Dummy	2.574	***	0.036	1.387	***	0.031	1.428	***	0.023
Living in a city (ref = no)	Dummy	0.813	***	0.019	0.481	***	0.017	0.508	***	0.012
Partner's occupation (ref = blue collar)										
Agriculture	Dummy	-0.861	***	0.025	-0.608	***	0.022	-0.715	***	0.016
Lower white collar	Dummy	0.047		0.024	0.005		0.020	-0.008		0.014
Upper white collar	Dummy	0.173	***	0.026	0.121	***	0.025	0.129	***	0.019
Unemployed	Dummy	0.045		0.046	0.082		0.045	0.231	***	0.034
Values a: Age woman at birth first child	7 - 49	-0.005	**	0.002	-0.002		0.002	-0.002		0.002
Values b: Age difference (partner – woman)	-35 - 69-	-0.006	***	0.001	-0.004	***	0.001	-0.007	***	0.001
Values c: Partner's education (ref = less than primary)										
primary completed, secondary not	Dummy	0.042		0.024	0.050	*	0.021	0.024		0.016
secondary completed, no tertiary	Dummy	0.093	**	0.028	0.042		0.025	0.010		0.019
at least some tertiary	Dummy	0.110	***	0.034	0.006		0.031	-0.057	*	0.023
Values d: Traditional household structure	0 - 2	-0.125	***	0.014	-0.077	***	0.014	-0.079	***	0.010
Age	15 - 49	0.235	***	0.011	0.175	***	0.006	0.191	***	0.005
Age^2	225 - 2401	-0.003	***	0.000	-0.002	***	0.000	-0.003	***	0.000
District level										
Economic development: Wealth level	0.01 - 0.87	-1.308	**	0.409	-0.534		0.369			
Male labour supply: Male non-employment	0.00 - 0.71	-2.063	**	0.716	-2.107	**	0.725			
Labour market structure: Share white collar	0.03 - 0.81	1.312	***	0.209	1.345	***	0.303			
Labour market structure: Share skilled labour	0.01 - 0.48	0.628		0.358	1.519	***	0.425			
Degree of urbanisation	0.00 - 1.00	0.050		0.182	0.023		0.168			
Norms: Women in public sphere	0.00 - 0.79	2.971	***	0.308	2.170	***	0.423			
Norms: Traditional care roles	0.03 - 0.76	0.214		0.327	1.396	**	0.430			
Country level										
FDI (In three years average (% GDP))	-1.11 - 3.50									
Democracy (Freedom House)	1 - 5									
State institutionalisation of conservative Islam	0 - 6	-0.428	***	0.052	-0.210	**	0.069			
Traditional family policies & laws	0.06 - 0.71									
Public sector: Gov. expenditures (prop. GDP)	0.05 - 0.41									
Social Safety: Family Allowance policies	Dummy									

Appendix 6.1 Continued

Variable	range	MCMC (started from weighted IGLS) Log odds	s.e.	IGLS (weighted) Log odds	s.e.	Fixed effects model (weighted) Log odds	s.e.
Model statistics							
Household-level variance		2.126 ***	0.067	2.337 ***	0.024	The model includes 382 dummies, one for each district minus one. These coefficients are not reported.	
District-level variance		0.375 ***	0.032	0.174 ***	0.016		
Country-level variance		1.062 ***	0.323	0.383 ***	0.110		
Intercept		-5.571 ***	0.115	-5.134 ***	0.333	-5.923 ***	0.565

* p<0.05 ** p<0.01 *** p<0.001; N_i = 96,460; N_h = 227,477; N_d = 383; N_c = 28

Appendix 7.1 Coefficients of the main effects of the multivariate four-level logistic regression analyses with the logged odds of being non-agriculturally employed as dependent variable and all interaction terms included (see Table 7.1)

		Full interaction model	
Variable	**range**	**Log odds**	**s.e.**
Micro level			
Children (ref = no children)			
1or 2, older than 5	Dummy	-0.033	0.026
3 or 4, older than 5	Dummy	-0.213 ***	0.041
5 or more, older than 5	Dummy	-0.520 ***	0.150
1 or 2, at least 1 younger than 6	Dummy	-0.204 ***	0.025
3 or 4, at least 1 younger than 6	Dummy	-0.311 ***	0.033
5 or more, at least 1 younger than 6	Dummy	-0.390 ***	0.043
Partner present (ref = no partner)	Dummy	-0.842 ***	0.022
Presence male breadwinner (ref = no)	Dummy	-0.207 ***	0.017
Education (ref = less than primary completed)			
primary completed, secondary not	Dummy	-0.118	0.239
secondary completed, no tertiary	Dummy	-0.156	0.169
at least some tertiary	Dummy	1.092 **	0.279
Living in a city (ref = no)	Dummy	0.806 ***	0.017
Partner's occupation (ref = blue collar)			
Agriculture	Dummy	-0.912 ***	0.025
Lower white collar	Dummy	0.036	0.022
Upper white collar	Dummy	0.108 ***	0.027
Unemployed	Dummy	0.141 **	0.046
Values a: Age woman at birth first child	7 - 49	-0.006 ***	0.002
Values b: Age difference (partner – woman)	-35 - 69-	-0.007 ***	0.001
Values c: Partner's education (ref = less than primary)			
primary completed, secondary not	Dummy	0.055 *	0.023
secondary completed, no tertiary	Dummy	0.088 **	0.028
at least some tertiary	Dummy	0.169 ***	0.035
Values d: Traditional household structure	0 - 2	-0.126 ***	0.014
Age	15 - 49	0.248 ***	0.018
Age^2	225 - 2401	-0.003 ***	0.000
District level			
Economic development: Wealth level	0.01 - 0.87	-1.120 ***	0.216
Male labour supply: Male non-employment	0.00 - 0.71	-4.558 ***	0.0797
Labour market structure: Share white collar	0.03 - 0.81	1.436 ***	0.293
Labour market structure: Share skilled labour	0.01 - 0.48	0.074	0.578
Degree of urbanisation	0.00 - 1.00	0.532 ***	0.135
Norms: Women in public sphere	0.00 - 0.79	2.989 ***	0.521
Norms: Traditional care roles	0.03 - 0.76	0.504	0.450
Country level			
Economic development: GDP/c (*1000)	0.49 – 8.16		
FDI (In three years average (% GDP))	-1.11 - 3.50		
Democracy (Freedom House)	1 - 5		
State institutionalisation of conservative Islam	0 - 6	-0.367 ***	0.042
Traditional family policies & laws	0.06 - 0.71	3.772 ***	0.781
Public sector: Gov. expenditures (prop. GDP)	0.05 - 0.41		
Social Safety: Family Allowance policies	Dummy		

Appendix 7.1 Continued

Variable	range	Full interaction model Log odds		s.e.
Model statistics				
Household-level variance		2.064	***	0.047
District-level variance		0.337	***	0.028
Country-level variance		0.905	**	0.280
Intercept		-4.046	***	0.216
DIC Diagnostic		234,121.29		

* p<0.05 ** p<0.01 *** p<0.001; N_i = 296,460; N_h = 227,477; N_d = 383; N_c = 28; The coefficients of the variables that are included in the interaction terms (education, all district-level variables, state institutionalisation of conservative Islam, and traditional family policies and laws), represent the influence of that factor in the case that the other have of the interaction terms is zero (either being education of the macro-context variable). In other words, these coefficients should not be interpreted as the general effects of education or the district/country-level factor. Models are based on MCMC estimation, starting from IGLS models weighted for in-country and between-country representativeness. Sources: see Chapter 4.

Appendix 8.1 Coefficients of the multivariate four-level logistic regression analysis with the logged odds of being gainfully non-agriculturally employed as dependent variable (see Table 8.2)

Variable	Range	Log odds	s.e.
Micro level			
Education (ref = less than primary completed)			
primary completed, secondary not	Dummy	0.401 ***	0.020
secondary completed, no tertiary	Dummy	1.094 ***	0.028
at least some tertiary	Dummy	2.558 ***	0.036
Living in a city (ref = no)	Dummy	0.807 ***	0.018
Partner's occupation (ref = blue collar)			
Agriculture	Dummy	-0.852 ***	0.024
Lower white collar	Dummy	0.043	0.022
Upper white collar	Dummy	0.167 ***	0.027
Unemployed	Dummy	0.058	0.046
Values a: Age woman at birth first child	7 - 49	-0.005 *	0.002
Values b: Age difference (partner – woman)	-35 - 69-	-0.005 ***	0.001
Values c: Partner's education (ref = less than primary)			
primary completed, secondary not	Dummy	0.043	0.022
secondary completed, no tertiary	Dummy	0.097 ***	0.027
at least some tertiary	Dummy	0.111 ***	0.032
Values d: Traditional household structure	0 - 2	-0.029	0.017
Age	15 - 49	0.238 ***	0.009
Age^2	225 - 2401	-0.003 ***	0.000
District level			
Economic development: Wealth level	0.01 - 0.87	-0.337 *	0.167
Male labour supply: Male non-employment	0.00 - 0.71	-1.924 ***	0.565
Labour market structure: Share white collar	0.03 - 0.81	0.454 *	0.224
Labour market structure: Share skilled labour	0.01 - 0.48	1.178 ***	0.327
Degree of urbanisation	0.00 - 1.00	0.060	0.101
Norms: Women in public sphere	0.00 - 0.79	3.244 ***	0.348
Norms: Traditional care roles	0.03 - 0.76	0.681 ***	0.131
Country level			
Economic development: GDP/c (*1000)	0.49 – 8.16		
FDI (In three years average (% GDP))	-1.11 - 3.50		
Democracy (Freedom House)	1 - 5		
State institutionalisation of conservative Islam	0 - 6	-0.355 ***	0.062
Traditional family policies & laws	0.06 - 0.71		
Public sector: Gov. expenditures (prop. GDP)	0.05 - 0.41		
Social Safety: Family Allowance policies	Dummy		
Model statistics			
Household-level variance		2.099 ***	0.047
District-level variance		0.370 ***	0.031
Country-level variance		1.172 **	0.364
Intercept		-6.085 ****	0.126
DIC Diagnostic		235,429.38	

* p<0.05 ** p<0.01 *** p<0.001; N_i = 295,777; N_h = 226,676; N_d = 383; N_c = 28; Models are based on MCMC estimation, starting from IGLS models weighted for in-country and between-country representativeness. Sources: see Chapter 4.

Appendix 8.2 Multivariate four-level logistic regression analysis, including household configuration variables, with the logged odds of being non-agriculturally employed as dependent variable using different estimation techniques

		MCMC		Weighted IGLS	
Variable	**Range**	**Coefficients**	**s.e.**	**Coefficients**	**s.e.**
Household roles & needs					
Number of adult women	1 - 22	0.079 ***	0.011	0.062 ***	0.016
Number of elderly	0 - 5	-0.040 *	0.017	-0.045 *	0.020
Number of adult men	0 - 16	-0.054 ***	0.010	-0.052 ***	0.015
Control: Number of household members	1 - 69	-0.028 ***	0.005	-0.021 *	0.009
Household position (ref = partner of hhh)					
Head of household	Dummy	0.307 ***	0.036	0.172 *	0.076
Other position	Dummy	-0.016	0.024	0.019	0.071
Sex hierarchy & lineage					
Proportion male children	0.00 - 1.00	-0.061 **	0.020	-0.042 *	0.020
Proportion children not-biologically related to hhh	0.00 - 1.00	0.263 *	0.106	0.329 *	0.144
Proportion male among 15 -21 age group	0.00 - 1.00	0.046	0.033	0.050	0.027
Children and household head					
Children (ref = no children)					
1 or 2, older than 5	Dummy	-0.031	0.025	-0.017	0.047
3 or 4, older than 5	Dummy	-0.183 ***	0.041	-0.109	0.058
5 or more, older than 5	Dummy	-0.466 **	0.148	-0.318 ***	0.076
1 or 2, at least 1 younger than 6	Dummy	-0.185 ***	0.022	-0.148	0.109
3 or 4, at least 1 younger than 6	Dummy	-0.250 ***	0.030	-0.196	0.112
5 or more, at least 1 younger than 6	Dummy	-0.292 ***	0.045	-0.168	0.093
Partner present (ref = no partner)	Dummy	-0.788 ***	0.026	-0.465 **	0.188
Presence male breadwinner (ref = no)	Dummy	-0.055 *	0.025	-0.021	0.032

* p<0.05 ** p<0.01 *** p<0.001; N_i = 295,777; N_h = 226,676; N_d = 383; N_c = 28; The coefficients presented are all part of a larger model, which is identical to Model 4 from Table 6.2. The only difference is the addition of the household structure variables as they are presented here. In appendix 8.1 the other coefficients are given for the MCMC model. Sources: see Chapter 4.

Appendix 8.3 Logistic regression coefficient of being gainfully non-agriculturally employed of women aged 15–49, neither in school nor

	Model 0: all countries (see Table 1)		Greater Middle East	
	Log odds	s.e.	Log odds	s.e.
Household roles & needs				
Number of adult women	0.079 ***	0.011	0.056 ***	0.015
			0.058 **	0.020
			0.065	
			0.046	
			0.063	
Number of elderly	-0.040 *	0.017	-0.102 ***	0.029
			-0.098 ***	0.026
			-0.092	
			-0.095	
			-0.054	
Number of adult men	-0.054 ***	0.010	-0.077 ***	0.017
			-0.112 ***	0.014
			-0.098	
			-0.101	
			-0.074	
Control: Number of household members	-0.028 ***	0.005	-0.046 ***	0.008
			-0.049 ***	0.009
			-0.058	
			-0.052	
			-0.056	
Household position (ref = partner of hhh)				
Head of household	0.307 ***	0.036	0.349 ***	0.074
			0.314 ***	0.074
			0.299	
			0.288	
			0.318	
Other position	-0.016	0.024	-0.043	0.057
			0.016	0.042
			0.008	
			0.000	
			0.019	
Sex hierarchy & lineage				
Proportion male children	-0.061 **	0.020	-0.043	0.035
			-0.043	0.033
			-0.041	
			-0.039	
			-0.038	
Proportion children not-biologically related to hhh	0.263 *	0.106	0.927 **	0.302
			0.902 **	0.279
			0.808	
			0.779	
			0.787	
Proportion male among 15 -21 age group	0.046	0.033	0.080	0.051
			0.152	0.050
			0.147	
			0.137	
			0.151	

disables, in four different geographical regions among Muslim countries

Sub-Saharan Africa		Central Asia		Southeast Asia	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Log odds**	**s.e.**
0.042 **	0.017	0.266 ***	0.042	0.198 ***	0.027
0.039		0.349		0.172	
0.034	0.019	0.319		0.181	
0.045		0.293 ***	0.045	0.171	
0.036		0.353		0.182 ***	0.015
-0.033	0.019	0.056	0.052	0.090 **	0.035
-0.022		0.121		0.020	
-0.020	0.024	0.096		0.025	
-0.021		0.102	0.053	0.019	
-0.018		0.124		0.016	0.040
0.003	0.011	-0.087 *	0.039	-0.021	0.026
0.010		-0.189		-0.044	
0.009	0.014	-0.195		-0.034	
0.010		-0.305 ***	0.034	-0.038	
0.006		-0.188		-0.031	0.023
-0.010	0.006	-0.134 ***	0.020	-0.075 ***	0.015
-0.004		-0.142		-0.083	
-0.003	0.007	-0.131		-0.091	
-0.005		-0.099 ***	0.009	-0.083	
-0.002		-0.145		-0.092 ***	0.009
0.201 ***	0.047	0.262 *	0.108	-0.016	0.093
0.227		0.302		-0.055	
0.243 ***	0.049	0.256		-0.049	
0.242		0.368 **	0.109	-0.044	
0.232		0.267		-0.094	0.103
-0.076	0.034	0.238 *	0.095	-0.085	0.055
-0.147		0.001		0.017	
-0.144 ***	0.037	-0.018		0.018	
-0.135		0.046	0.079	0.023	
-0.149		-0.024		0.017	0.048
-0.072 *	0.029	0.005	0.064	-0.072	0.039
-0.088		0.013		-0.087	
-0.095 **	0.034	0.008		-0.088	
-0.090		0.003	0.009	-0.091	
-0.093		0.016		-0.091 *	0.041
0.029	0.097	1.080 *	0.457	0.289	0.260
0.026		1.472		0.435	
0.029	0.127	1.484		0.459	
0.044		1.368 **	0.450	0.434	
0.031		1.468		0.534	0.323
-0.091 *	0.039	0.401 ***	0.098	0.041	0.057
-0.130		0.773		-0.020	
-0.125 **	0.045	0.727		-0.021	
-0.120		0.879 ***	0.111	-0.037	
-0.119		0.769		-0.032	0.055

Appendix 8.4 Logistic regression coefficient of being gainfully non-agriculturally employed of women aged 15–49, neither in school nor

	Model 0: all countries (see Table 1)		Greater Middle East	
	Log odds	s.e.	Log odds	s.e.
Household roles & needs				
Number of adult women	0.062 ***	0.016	0.047 *	0.020
Number of elderly	-0.045 *	0.020	-0.068 *	0.030
Number of adult men	-0.052 ***	0.015	-0.056 **	0.019
Control: Number of household members	-0.021 *	0.009	-0.028 **	0.010
Household position (ref = partner of hhh)				
Head of household	0.172 *	0.076	0.165 *	0.081
Other position	0.019	0.071	-0.106 *	0.052
Sex hierarchy & lineage				
Proportion male children	-0.042 *	0.020	-0.009	0.042
Proportion children not-biologically related to hhh	0.329 *	0.144	0.971 **	0.360
Proportion male among 15 -21 age group	0.050	0.027	0.034	0.060
Children and household head				
Children (ref = no children)				
1 or 2, older than 5	-0.017	0.047	0.002	0.045
3 or 4, older than 5	-0.109	0.058	-0.066	0.067
5 or more, older than 5	-0.318 ***	0.076	-0.329	0.199
1 or 2, at least 1 younger than 6	-0.148	0.109	-0.208 ***	0.045
3 or 4, at least 1 younger than 6	-0.196	0.112	-0.285 ***	0.055
5 or more, at least 1 younger than 6	-0.168	0.093	-0.210 ***	0.079
Partner present (ref = no partner)	-0.465 **	0.188	-0.982 ***	0.053
Presence male breadwinner (ref = no)	-0.021	0.032	-0.030	0.050

*p<0.05 ** p<0.01 *** p<0.001; Notes: The models only show the coefficients of the variables of theoretical interest. All models are controlled for education, age, living in a city, partner's occupation and education, age difference with partner, age at birth first child, living in a polygynous household and context variables (see Chapter 4 and Chapter 6). The region-specific models are based on the subsamples (not on the models with interaction terms [see Section 8.5.2]).

disables, in four different geographical regions among Muslim countries using weighted IGLS estimation procedures

Sub-Saharan Africa		Central Asia		Southeast Asia	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Log odds**	**s.e.**
0.014	0.017	0.209 ***	0.033	0.149 ***	0.034
-0.056 ***	0.014	-0.002	0.053	0.028	0.033
-0.011	0.019	-0.145 **	0.053	-0.047	0.055
0.003	0.007	-0.095 ***	0.009	-0.064 ***	0.018
0.139 **	0.044	0.170	0.097	-0.199	0.150
-0.123	0.093	0.196 ***	0.055	0.040	0.084
-0.095 ***	0.012	-0.002	0.062	-0.063 ***	0.015
0.114	0.144	0.793 ***	0.094	0.197	0.137
-0.085 ***	0.019	0.377 ***	0.041	0.069 *	0.030
0.096 ***	0.020	0.018	0.083	-0.146 ***	0.034
-0.004	0.036	-0.034	0.078	-0.273 ***	0.054
0.008	0.157	-0.891 ***	0.107	-1.285 ***	0.162
0.005	0.020	-0.265 ***	0.034	-0.400 ***	0.096
-0.029	0.031	-0.613 ***	0.026	-0.409 **	0.146
-0.056	0.039	-1.250 ***	0.027	-0.554 ***	0.145
-0.034	0.104	-0.785 ***	0.108	-0.936 ***	0.280
-0.046	0.025	-0.002	0.035	-0.137 **	0.042

Appendix 9.1 District scores

District	Women's employment	Predominant Religion				Type of Islam	Institutionalisation of Islam		
Indonesia									
Province	**%**	**Muslim**	**Protestant**	**Catholic**	**Hindu**	**Tradition-alist[1]**	***Shari'a***	**Islamic Party (%)**	**Muslim Party (%)**
DI Aceh	22.0	1	0	0	0	0	1	54	15
North Sumatra	28.9	1	0	0	0	0	1	28	10
West Sumatra	31.5	1	0	0	0	0	1	50	14
Riau	26.6	1	0	0	0	0	1	36	19
Jambi	19.0	1	0	0	0	0	0	29	14
South Sumatra	25.3	1	0	0	0	0	1	31	19
Bengkulu	24.0	1	0	0	0	0	0	25	25
Lampung	27.9	1	0	0	0	1	0	18	17
Bangka Belitung	23.6	1	0	0	0	0	0	33	0
DKI Jakarta	46.4	1	0	0	0	1	0	33	10
West Java	26.2	1	0	0	0	1	1	30	12
Central Java	41.9	1	0	0	0	1	0	15	27
DI Yogyakarta	52.3	1	0	0	0	1	0	13	37
East Java	34.1	1	0	0	0	1	1	12	39
Banten	28.9	1	0	0	0	1	1	32	18
Bali	48.9	0	0	0	1	0	0	0	0
West Nusa Tenggara	28.7	1	0	0	0	0	0	40	10
East Nusa Tenggara	28.6	0	0	1	0	0	0	0	0
West Kalimantan	15.7	1	0	0	0	0	0	20	10
Central Kalimantan	27.3	1	0	0	0	0	0	17	16
South Kalimantan	33.1	1	0	0	0	0	0	45	19
East Kalimantan	33.2	1	0	0	0	0	0	29	14
North Sulawesi	26.7	0	1	0	0	0	0	17	0
Central Sulawesi	23.2	1	0	0	0	0	0	17	16
South Sulawesi	21.1	1	0	0	0	0	1	29	9
Southeast Sulawesi	21.8	1	0	0	0	0	0	20	20
Gorontalo	22.3	1	0	0	0	0	1	33	0
Maluku	27.6	1	0	0	0	0	0	25	0
Kep Bangka Belitung	31.6	1	0	0	0	0	0	0	33
Sulawesi Barat	24.6	1	0	0	0	0	0	17	0
Maluka Utara	30.1	1	0	0	0	0	0	33	0
Papua Barat	19.2	0	1	0	0	0	0	0	0
Papua	14.9	0	1	0	0	0	0	0	20

Appendix 9.1 Continued

District	Women's employment	Predominant Religion			Type of Islam	Institutionalisation of Islam	
Nigeria							
Governorate	**%**	**Mulim**	**Protestant**	**Catholic**	**Sokoto[2]**	***Shari'a***	**ANPP Governor**
Akwa Ibom	65.3	0	1	0	0	0	0
Anambra	37.6	0	0	1	0	0	1
Bauchi	57.2	1	0	0	1	1	1
Edo	54.6	0	1	0	0	0	0
Benue	15.2	0	0	1	0	0	0
Borno	23.8	1	0	0	0	1	1
Cross River	22.9	0	1	0	0	0	0
Adamawa	37.8	1	0	0	0	0	0
Imo	48.4	0	1	0	0	0	0
Kaduna	29.9	1	0	0	1	1	0
Kano	63.8	1	0	0	1	1	1
Katsina	47.7	1	0	0	1	1	0
Kwara	49.6	1	0	0	0	0	0
Lagos	73.1	0	1	0	0	0	0
Niger	47.4	1	0	0	1	1	0
Ogun	62.2	0	1	0	0	0	0
Ondo	24.0	0	1	0	0	0	0
Oyo	75.4	1	0	0	0	0	0
Plateau	17.0	0	1	0	0	0	0
Rivers	37.5	0	1	0	0	0	0
Sokoto	58.6	1	0	0	1	1	0
Abia	49.0	0	1	0	0	0	0
Delta	45.4	0	1	0	0	0	0
Enugu	34.2	0	0	1	0	0	0
Jigawa	48.4	1	0	0	1	1	0
Kebbi	41.9	1	0	0	1	1	0
Kogi	52.7	0	1	0	0	0	0
Osun	86.4	1	0	0	0	0	0
Taraba	29.3	0	1	0	0	0	0
Yobe	36.6	1	0	0	0	1	1
Bayelsa	29.9	0	1	0	0	0	0
Ebonyi	35.2	0	1	0	0	0	0
Ekiti	65.2	0	1	0	0	0	0
Gombe	29.3	1	0	0	1	1	0
Nasarawa	21.6	0	1	0	0	0	0
Zamfara	39.4	1	0	0	1	1	1
Abuja	54.2	0	1	0	0	0	0

Notes: for dummy variables a '1' indicates the presence of the type of religion or institution as given in the column label; (1) Traditionalist is the less conservative form of Islam in Indonesia, compared to the 'Modernist' type. All other Muslim districts are 'Modernist'; (2) the Sokoto dummy only distinguishes between the Muslim dominated districts. The Christian districts are by definition not Sokoto.

Appendix 9.2 Logistic regression results for models of gainful non-agricultural employed outside, women aged 15–49, neither in school nor

	Indonesia MCMC		
	Log odds		**s.e.**
Individual level - Religion			
Religious denomination			
Islam	ref		
Protestantism	-0.418	***	0.059
Catholicism	-0.625	***	0.096
Hinduism	-0.083		0.159
Other	-0.824	***	0.178
District level - religion			
Dominant religion			
Islam			
Modernist (more conservative)	ref		
Traditionalist (less conservative)	0.572	***	0.139
Other Islam	n.a.		
Sokoto-Islam	n.a.		
Protestantism	-0.385		0.250
Catholicism	0.702	*	0.295
Hinduism	1.154	**	0.347
Shari'a	-0.217	*	0.102
Presence political Islam: Islamic parties	0.009	#	0.005
Presence political Islam: Muslim parties	0.002		0.006
Political Islam: Governor from ANPP	n.a.		
District level - controls			
GDI Value	0.020	***	0.003

*p<0.05 ** p<0.01 *** p<0.001 and only for the district-level variables # p<0.10; N_i= 32,265; N_d=33; n.a. means that for that country the variable or category was not used/available. Notes: all models include the standard individual- and district-level variables that are used in this thesis (see Chapters 4 and 6). Sources: see Chapter 4 and Section 9.4.

disabled in Indonesia and Nigeria using different estimation techniques

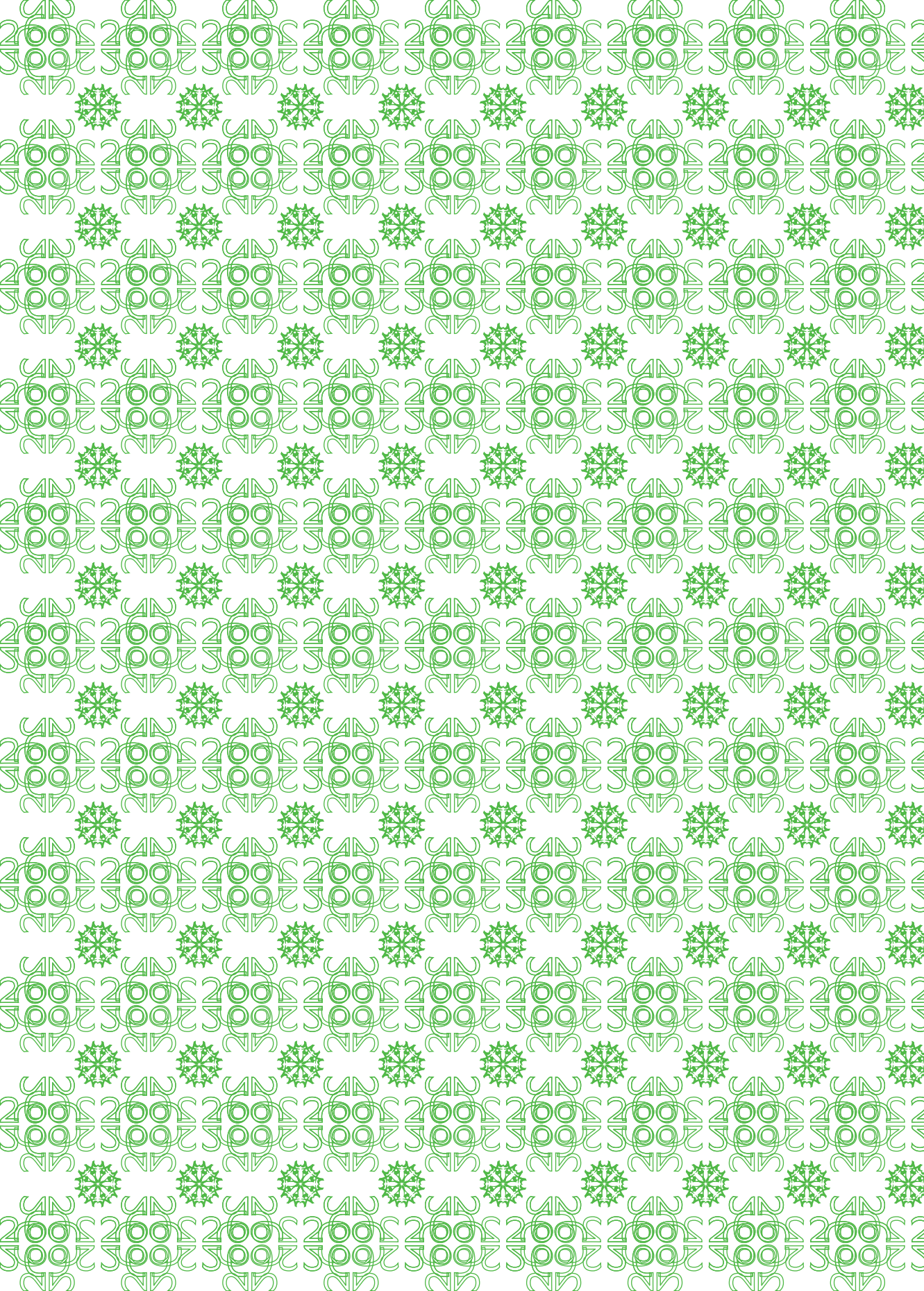
Indonesia Weighted IGLS		Nigeria MCMC		Nigeria Weighted IGLS	
Log odds	**s.e.**	**Log odds**	**s.e.**	**Log odds**	**s.e.**
ref		ref		ref	
-0.275 ***	0.080	-0.770 ***	0.073	-0.473 ***	0.122
-0.435 ***	0.117	-0.863 ***	0.105	-0.533 ***	0.136
-0.128	0.231	n.a.		n.a.	
-0.705 **	0.238	-1.771 ***	0.189	-1.193 ***	0.121
ref		n.a.		n.a.	
0.408 ***	0.122	n.a.		n.a.	
		ref		ref	
		0.276	0.245	0.264	0.235
-0.175	0.174	-1.335 ***	0.236	-0.644 *	0.272
0.842 ***	0.252	-1.909 ***	0.447	-1.186 **	0.399
1.257 ***	0.310	n.a.		n.a.	
-0.220 ***	0.066	-1.429 *	0.576	-0.817 *	0.399
0.013 **	0.004	n.a.		n.a.	
0.005	0.004	n.a.		n.a.	
		0.077	0.361	-0.135	0.209
0.019	0.011	n.a.		n.a.	

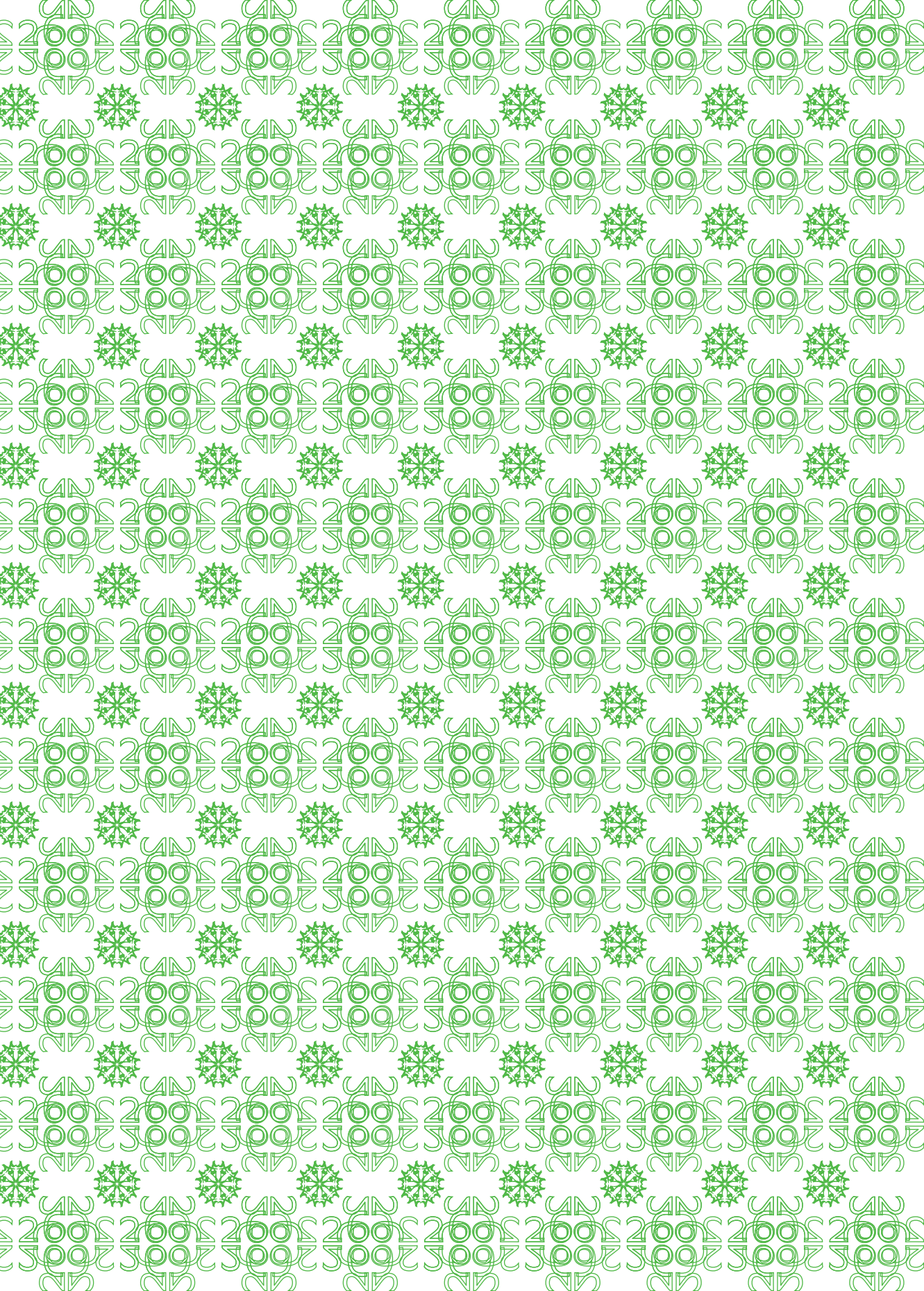
Appendix 10.1 Influences on employment over four years in Egypt, estimated using weighted IGLS

Variable	Individual-level model including year dummies[1] Weighted IGLS Log odds		s.e.
Micro level			
Children (ref = no children)			
...			
1 or 2, at least 1 younger than 6			
3 or 4, at least 1 younger than 6			
5 or more, at least 1 younger than 6			
Presence male breadwinner (ref = no)			
Education (ref = less than primary completed)			
...			
Secondary completed, no tertiary			
At least some tertiary			
District-level factors			
Economic development: Wealth level			
Male labour supply: Male non-employment			
Labour market structure: Share white collar			
Labour market structure: Share skilled labour			
Degree of urbanisation			
Norms: Women in public sphere			
Norms: Traditional care roles			
1992	Ref.		
1995	0.030		0.093
2000	-0.423	***	0.094
2005	-0.412	***	0.091

* p<0.05 ** p<0.01 *** p<0.001; N_i = 55,419; N_h = 47,957; N_{dt} = 99; N_d =26; N_t = 4; Notes: (1) This model is similar to Model 1 in Table 10.2; (2) This model is similar to Model 5 in Table 10.2; (3) In these columns, the coefficient for each was calculated based on the interaction terms. The * indicates that the coefficient significantly differs from the coefficients in 1992; for 1992 the * indicate whether the coefficient differs significantly from zero.

Full model, without interactions[2] Weighted IGLS		Interaction model[3] Weighted IGLS			
Log odds	s.e.	1992	1995	2000	2005
		-0.240 *	0.011	-0.336	-0.462
		-0.035	-0.087	-0.281	-0.524 ***
		-0.072	-0.013	-0.333	0.033
		-0.510 ***	-0.387	-0.409	-0.079 **
		2.748 ***	2.554	2.263 ***	1.554 ***
		3.057 ***	3.055	3.292	2.692 *
-1.236 **	0.398				
-1.072	1.074				
1.461 ***	0.299				
0.347	0.587				
-0.559 ***	0.057				
0.233	0.619				
-1.550 *	0.636				
Ref.					
0.005	0.052				
-0.232	0.215				
-0.453 ***	0.079				





Bibliography

A

Abdolah, Kader (2008). *De Boodschapper: Een Vertelling*. Breda: De Geus.

Abu Nasr, Julinda, Khoury, Nabil F. & Azzam, Henry T. (1985). *Women, Employment and Development in the Arab World.* Berlin: Mouton Publishers.

Abu-Lughod, Lila (Ed.) (1998). *Remaking Women: Feminism and Modernity in the Middle East.* New Jersey: Princeton University Press.

Acar, Feride (2006). "Gender Mainstreaming Policies in Education and Employment in Jordan, Morocco and Turkey; Turkey" In Verloo, Mieke, Van der Vleuten, Anna, Jansen, Willy & Acar, Feride (Eds.), *Gender Mainstreaming in Education and Employment (pp. 79–111).* Turin, Italy: European Training Foundation.

Adely, Fida (2009). "Educating Women for Development: the *Arab Human Development Report 2005* and the Problem with Women's Choices" *International Journal of Middle East Studies,* 41(1): 105–22.

Afshar, Haleh (Ed.) (1998). *Women and Empowerment: Illustrations from the Third World.* Basingstoke, England: MacMillan.

Ahmed, Leila (1992). *Women and Gender in Islam: Historical Roots of a Modern Debate.* London: Yale University Press.

Allison, Paul D. (1999). *Multiple Regression: A Primer.* Thousand Oaks, California: Pine Forge Press.

Allison, Paul D. (2001). *Missing Data.* Thousand Oaks: Sage Publications.

Al-Qudsi, Sulayman S. (1998). "Labour Participation of Arab Women: Estimates of the Fertility to Labour Supply Link" *Applied Economics,* 30(7): 931–41.

Amin, Sajeda & Al-Bassusi, Nagah H. (2004). "Education, Wage Work, and marriage: Perspectives of Egyptian Working Women" *Journal of Marriage and Family,* 66 (5): 1287–99.

Ammons, Samantha K. & Edgell, Penny (2007). "Religious Influences on Work-Family Trade-Offs" *Journal of Family Issues*, 28(6): 794–826.

Ananta, Aris, Arifin, Evi Nurvidya & Suryadinata, Leo (2005). *Emerging Democracy in Indonesia.* Singapore: Institute of Southeast Asian Studies.

Andersen, Roy R., Seibert, Robert F. & Wagner, Jon G. (2012). *Politics and Change in the Middle East.* Boston: Longman.

Anderson, Siwan & Eswaran, Mukesh (2009). "What Determines Female Autonomy? Evidence from Bangladesh" *Journal of Development Economics*, 90(2): 179–91.

Anker, Richard (1983). "Female Labor Force Participation in Developing Countries: A Critique of Current Definitions and Data Collection Methods" *International Labour Review*, 122(6): 709–23.

Anker, Richard (1998). *Gender and Jobs: Sex Segregation of Occupations in the World*. Geneva: ILO.

Archer, Margaret Scotford (1988). *Culture and Agency. The Place of Culture in Social Theory.* Cambridge: Cambridge University Press.

Aromolaran, Adebayo B. (2004). "Female Schooling, Non-Market Productivity, and Labor Market Participation in Nigeria" *Economic Growth Center, Yale University, Center Discussion Paper no. 879.*

Assaad, Ragui (1997). "The Employment Crisis in Egypt: Current Trends and Future Prospects" In: Pfeifer, Karen (Ed.), *Research in Middle East Economics, vol. 2 (pp. 39–66).* Greenwich, CT: JAI Press.

Assaad, Ragui (2003). "Gender and Employment: Egypt in Comparative Perspective" In: Posusney, Pripstein, Marsha & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 119–41).* Boulder, London: Lynne Rienner.

Assaad, Ragui (2004). "Why Did Economic Liberalization Lead to Feminization of the Labor Force in Morocco and De-Feminization in Egypt?" *Paper prepared for The Center of Arab Women Training and Research (CAWTAR),* Mediterranean Development Forum (MDF).

Assaad, Ragui & Arntz, Melanie (2005). "Constrained Geographical Mobility And Gendered Labor Market Outcomes Under Structural Adjustment: Evidence from Egypt" *World Development*, 33(3): 431–54.

Aziz, Heba (1995). "Understanding Attacks on Tourists in Egypt" *Tourism Management*, 16(2): 91–5.

Azzam, Henry, Abu Nasr, Julinda & Lorfing, Irini (1985). "An Overview of Arab Women in Population, Employment and Economic Development" In: Abu Nasr, Julinda, Nabil F. Khoury & Henry T. Azzam (Eds.), *Women, Employment and Development in the Arab World (pp. 5–37).* Berlin: Mouton Publishers.

B

Badran, Margot (2001). "Understanding Islam, Islamism, and Islamic Feminism" *Journal of Women's History,* 13(1): 47–52.

Bahramitash, Roksana (2002). "Islamic Fundamentalism and Women's Employment in Indonesia" *International Journal of Politics, Culture and Society,* 16(2): 255–72.

Bahramitash, Roksana (2003). "Revolution, Islamization, and Women's Employment in Iran" *The Brown Journal of World Affairs,* IX(2): 229–41.

Barbieri, Katherine & Schneider, Gerald (1999). "Globalization and Peace: Assessing New Directions in the Study of Trade and Conflict" *Journal of Peace Research* 36(4): 387–404.

Bardasi, Elena & Wodon, Quentin (2010). "Working Long Hours and Having No Choice: Time Poverty in Guinea" *Feminist Economics*, 16(3): 45–78.

Başlevent, Cem & Onaran, Özlem (2004). "The Effect of Export-Oriented Growth on Female Labor Market Outcomes in Turkey" *World Development*, 32(8): 1375–93.

Beck, Nathaniel (2010). "Time is Not A Theoretical Variable" *Political Analysis,* 18(3): 293–4.

Becker, Gary S. (1965). "A Theory of the Allocation of Time" *Economic Journal,* 75(299): 493–517.

Becker, Gary S. (1981). *The Treatise of the Family.* Cambridge, MA: Harvard University Press.

Beneria, Lourdes (1981). "Conceptualizing the Labor Force: the Underestimation of Women's Economic Activities" *Journal of Development Studies*, 17(3): 10–28.

Beneria, Lourdes (1982). "Accounting for Women's Work". In Beneria, Lourdes (Ed.), *Women and Development: The Sexual Division of Labor in Rural Societies*. New York: Praeger.

Benería, Lourdes & Sen, Gita (1981). "Accumulation, Reproduction, and Women's Role in Economic Development: Boserup Revisited" *Signs: Journal of Women in Culture and Society*, 7(2): 279–98.

Bergeron, Suzanne (2001). "Political Economy Discourses of Globalization and Feminist Politics" *Globalization and Gender*, 26(4): 983–1006.

Bernard, Jessie. (1975). *Women, Wives and Mothers: Values and Options*. Chicago: Aldine Publishing.

Black, Sandra E. & Brainerd, Elizabeth (2004). "Importing Equality? The Impact of Globalization on Gender Discrimination" *Industrial & Labor Relations Review,* 57(4): 540–59.

Blackburn, Robert M., Jarman, Jennifer & Brooks, Bradley (2000). "The Puzzle of Gender Segregation and Inequality: A Cross-National Analysis" *European Sociological Review*, 16(2): 119–35.

Boserup, Ester (1970). *Women's Role in Economic Development*. New York: St. Martin's Press.

Bottero, Wendy (2000). "Gender and the Labour Market at the Turn of the Century: Complexity, Ambiguity and Change" *Work, Employment & Society*, 14(4): 781–91.

Brady, Henry E. & Collier, David (Eds.) (2004). Rethinking Social Inquiry: Diverse Tools, Shared Standards. Lanham, Md.: Rowman and Littlefield.

Brady, Henry E. (2008). "Causation and Explanation in Social Science". In: Box-Steffensmeier, Janet, Henry E. Brady & David Collier (Eds.), *The Oxford Handbook of Political Methodology (pp. 217–70)*. Oxford: Oxford University Press.

Browne, Kath (2005). "Selling my Queer Soul or Queerying Quantitative Research?" *Sociological Research Online,* 3(1) [online journal: www.socresonline.org].

Bullock, Susan (1994). *Women and Work*. London: Zed.

Burnham, Peter, Gilland Lutz, Karin, Grant, Wyn & Layton-Henry, Zig (2008). *Research Methods in Politics (2nd edition, Comprehensively Revised and Updated).* Hampshire: Palgrave MacMillan.

Busse, Matthias & Nunnenkamp, Peter (2009). "Gender Disparity in Education and the International Competition for FDI" *Feminist Economics*, 15(3): 61–90.

C

Çağatay, Nilüfer & Özler, Şule (1995). "Feminization of the Labor Force: The Effects of Long-Term Development and Structural Adjustment" World Development, 23(11): 1883–94.

Cahoon, Ben (2009). "Worldstatesmen. Nigeria States" Accessed on 8/31/2009 through: http://www.worldstatesmen.org/Nigeria_federal_states.htm.

Cairoli, M. Laetitia (2007). "Girl but Not Woman. Garment Factory Workers in Fez, Morocco". In Moghadam, Valentine M. (Ed.), *From Patriarchy to Empowerment. Women's Participation, Movements and Rights in the Middle East, North Africa, and South Asia (pp. 160–79)*. Syracuse: Syracuse University Press.

Caldwell, John C. (1978). "A Theory of Fertility: From High Plateau to Destabilization" *Population and Development Review*, 4(4): 553–77.

Callaway, Barbara & Creevey, Lucy (1994). *The Heritage of Islam. Women, Religion, & Politics in West Africa.* Boulder & London: Lynne Rienner Publishers.

Calvès, Anne-Emmanuèle & Schoumaker, Bruno (2004). "Deteriorating Economic Context and Changing Patterns of Youth Employment in Urban Burkina Faso: 1980–2000" *World Development,* 32(8): 1341–54.

Carapico, Sheila (1996). "Gender and Status Inequalities in Yemen: Honour, Economics, and Politics" In: Moghadam, Valentine M. (Ed.), *Patriarchy and Economic Development. Women's Positions at the End of the Twentieth Century (pp. 80–98).* Oxford: Clarendon Press.

Chafe, William H. (1972). *The American Woman: Her Changing Social, Economic, and Political Roles, 1920–1970.* New York: Oxford University Press.

Chamie, Mary (1985). "Labour Force Participation of Lebanese Women" In: Abu Nasr, Julinda, Khoury, Nabil F. & Azzam, Henry T. (Eds.), *Women, Employment and Development in the Arab World (pp. 73–102).* Berlin: Mouton Publishers.

Chadwick, Bruce A. & Garrett, H. Dean (1995). "Women's Religiosity and Employment: The LDS Experience" *Review of Religious Research*, 36(3): 277–93.

Chantala, Kim, Blanchette, Dan & C.M. Suchindran (2006). *Software to Compute Sampling Weights for Multilevel Analysis.* Carolina Population Center, UNC at Chapel Hill.

Chen, Martha, Sebstad, Jennefer & O'Connell, Lesley (1999). "Counting the Invisible Workforce: The Case of Homebased Workers" *World Development*, 27(3): 603–10.

Cheng, Lucie (1999). "Globalization and Women's Paid Labour in Asia" *International Social Science Journal,* 51(2): 217–28.

CIA World Factbook (multiple years), "CIA World Factbooks" Accessed multiple times from 4/16/2009 through http://library.louisville.edu/government/goodsources/factbook.html and http://www.theodora.com/wfb/abc_world_fact_book.html.

Civettini, Nicole H. & Glass, Jennifer (2008). "The Impact of Religious Conservatism on Men's Work and Family Involvement" *Gender & Society*, 22(2): 172–93.

Clark, Roger (1992). "Economic Dependency and Gender Differences in Labor Force Sectoral Change in Non-Core Nations" *The Sociological Quarterly,* 33(1): 83–98.

Clark, Roger, Ramsbey, Thomas W. & Adler, Emily Stier (1991). "Culture, Gender, and Labor Force Participation: A Cross-National Study" *Gender & Society*, 5(1): 47–66.

CMM (Centre for Multilevel Modelling) (2011a). "Discrete response model FAQs" Accessed on 17/8/2010 through: http://www.bristol.ac.uk/cmm/software/support/support-faqs/drm.html.

CMM (Centre for Multilevel Modelling) (2011b). "Using weights" Accessed on 17/09/2010 through: http://www.bristol.ac.uk/cmm/software/support/support-faqs/weights.html.

Contreras, Dante & Plaza, Gonzalo (2010). "Cultural Factors in Women's Labor Force Participation in Chile" *Feminist Economics*, 16(2): 27–46.

Costello, Anna B. & Osborne, Jason W. (2005). "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most From Your Analysis" *Practical Assessment, Research & Evaluation*, 10(7): 1–9.

D

Dale, Angela, Fieldhouse, Edward, Shaheen, Nusrat & Kalra, Virinder (2002). "The Labour Market Prospects for Pakistani and Bangladeshi Women" *Work, Employment & Society*, 16(1): 5–25.

Davis, Nancy J. & Robinson, Robert V. (2006). "The Egalitarian Face of Islamic Orthodoxy:

Support for Islamic Law and Economic Justice in Seven Muslim-Majority Nations" *American Sociological Review,* 71(2): 167–90.
DDW (Database Developing World) (2009). "Database Developing World. Data Infrastructure for Research and Policy Analysis" Accessed on on 05/17/2010 through: http://www.databasedevelopingworld.org/.
Deeb, Marius (2011). "Arab Republic of Egypt". In Long, David E., Bernard Reich & Mark Gasiorowski, *The Government and Politics of the Middle East and North Africa (6th edition) (pp. 397–421).*
DHS (no date). "Measure DHS. Demographic and Health Surveys" Accessed through: http://www.measuredhs.com/data/available-datasets.cfm.
Doces, John A. (2006). "Globalization and Democracy: An Empirical Analysis Using A Simultaneous Equation Approach" *Paper prepared for the First Annual International Political Economy Conference,* Princeton University, Woodrow Wilson School of Public and International Affairs, Center for Globalization and Governance.
Dollar, David & Gatti, Roberta (1999). "Gender Inequality, Income, and Growth: Are Good Times Good for Women?" *Policy Research Report On Gender And Development, Working Paper Series, No. 1.* The World Bank Development Research Group/Poverty Reduction and Economic Management Network.
Dolton, Peter J. & Silles, Mary A. (2008). "The Effects of Over-Education on Earnings in the Graduate Labour Market" *Economics of Education Review*, 27(2): 125–39.
Donahoe, Debra Anne (1999). "Measuring Women's Work in Developing Countries" *Population and Development Review,* 25(3): 543–76.
Donno, Daniela & Russett, Bruce (2004). "Islam, Authoritarianism and Female Empowerment: What Are the Linkages?" *World Politics*, 56(4): 582–607.
Dorius, Shawn F. & Firebaugh, Glenn (2010). "Trends in Global Gender Inequality" *Social Forces,* 88(5): 1941–68.
Doumato, Eleanor Abdella (2003). "Education in Saudi Arabia: Gender, Jobs and the Price of Religion". In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 239–58).* Boulder, London: Lynne Rienner.
Drobnič, Sonja, Blossfeld, Hans-Peter & Rohwer, Götz (1999). "Dynamics of Women's Employment Patterns over the Family Life Course: A Comparison of the United States and Germany" *Journal of Marriage and the Family*, 61: 133–46.
Droeber, Julia (2003). ""Woman to Woman"- The Significance of Religiosity for Young Women in Jordan" *Women's Studies International Forum*, 26(5): 409–24.
Dube, Leela (1997). *Women and Kinship: Perspectives on Gender in South and South-East Asia*. Tokyo: United Nations University Press.
Dworkin, Shari L., Kambou, Sarah Degnan, Sutherland, Carla, Moalla, Khadija & Kapoor, Archana (2009). "Gendered Empowerment and HIV Prevention: Policy and Programmatic Pathways to Success in the MENA Region" *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 51(3): S111–8.

E

Edgar, Adrienne (2006). "Bolshevism, Patriarchy, and the Nation: The Soviet "Emancipation" of Muslim Women in Pan-Islamic Perspective" *Slavic Review*, 65(2): 252–72.
Eichengreen, Barry & Leblang, David (2006). "Democracy and Globalization" *NBER Working Paper Series, Working Paper 12450.* Accessed on 9/15/2011 through http://www.nber.org/papers/w12450.
Eliufoo, Harriet K. (2007). "Gendered division of labour in construction sites in Zanzibar" *Women in Management Review,* 22(2): 112–21.
Elson, Diane (Ed.) (1991). *Male Bias in the Development Process*. Manchester: Manchester University Press.
Elson, Diane (2009). "Gender Equality and Economic Growth in the World Bank *World Development Report 2006" Feminist Economics,* 15(3): 35–59.
Emmerson, Donald K. (2001). "Indonesia" In Krieger (Ed.), *The Oxford Companion to Politics of the*

World (2nd edition) (pp. 390–2). New York: Oxford University Press.
Esposito, John L. & Voll, John O. (1996). *Islam and Democracy.* Oxford: Oxford University Press.

F

Farah, N.H. (2006). "Arab Women's Development: How Relevant Are UNDP Measurements?" *Middle East Policy*, 13(2): 38–47.
Fazeli, Rafat (2002). [Review without a title]. *SIGNS: Journal for Women in Culture and Society*, 11(2): 569–73.
Fergany, Nader, Bennani, Farida, Elsadda, Hoda, Jadaane, Fahmi, & Kubursi, Atif (core team) (2003). *Arab Human Development Report 2003. Building a knowledge society.* Amman, Jordan: National Press; United Nations Development Programme, Regional Bureau for Arab States.
Fergany, Nader, Jad, Islah, Abdellatif, Kamal, Al-Kitbi, Ebtisam, Farahat, Mohamed Nour, Manna, Haytham & Silini, Naila (core team) (2006). *Arab Human Development Report 2005. Towards a rise of women in the Arab world.* Amman, Jordan: National Press; United Nations Development Programme, Regional Bureau for Arab States.
Feldmann, Horst (2007). "Protestantism, Labor Force Participation, and Employment Across Countries" *American Journal of Economics and Sociology*, 66(4): 795–816.
Fernandez, Raquel, Fogli, Alessandra & Olivetti, Claudia (2004). "Mothers and Sons: Preference Formation and Female Labor Force Dynamics" *The Quarterly Journal of Economics*, 119(4): 1249–99.
Fish, Steven (2002). "Islam and Authoritarianism" *World Politics,* 55(1): 4–37.
Forsythe, Nancy, Korzeniewicz, Roberto Patricio & Durrant, Valerie (2000). "Gender Inequalities and Economic Growth: A Longitudinal Evaluation" *Economic Development and Cultural Change*, 48(3): 573–617.
Freedman, Jane (2004). "Secularism as a Barrier to Integration? The French Dilemma" *International Migration,* 42(3): 6–27.
Freedom House (2010). "Freedom in the World. Historical country ratings" Accessed on 21/03/2010 through: http://www.freedomhouse.org/.

G

García, Craig (2011). "Review: Constituency-Level Elections and Constituency-Level Elections Archive Datasets" APSA-CP Newsletter, 22(1): 20–2.
Geaves, Ron (2006). *Key Words in Islam*. London: The Continuum International Publishing Group.
Gerring, John (2007). *Case Study Research. Principles and Practices*. Cambridge: Cambridge University Press.
Ghorashi, Halleh (1996). "Iranian Islamic and Secular Feminists, Allies or Enemies? A Question Rethought By Participating in the NGO Forum During the Fourth International Women's Conference in China" *MERA Occasional papers no. 27.* Amsterdam: Middle East Research Associates.
Glass, Jennifer & Nath, Leda E. (2006). "Religious Conservatism and Women's Market Behavior Following Marriage and Childbirth" *Journal of Marriage and Family*, 68(3): 611–29.
Glick, Peter & Sahn, David (1997). "Gender and Education Impacts on Employment and Earning in West Africa: Evidence from Guinea" *Development and Cultural Change,* 45(4): 793–823.
Glick, Peter & Sahn, David (2005). "Intertemporal Female Labor Force Behavior in a Developing Country: What Can We Learn From a Limited Panel?" *Labor Economics,* 12(1): 23–45.
Globalsecurity (2009). "Globalsecurity. Nigeria Christian / Muslim Conflict" Accessed on 8/31/2009 through: http://www.globalsecurity.org/military/world/war/nigeria-1.htm.
Goertz, Gary (2006). *Social Science Concepts: A User's Guide*. Princeton: Princeton University Press.
Goertz, Gary & Hewitt, J. Joseph (2006). "Concepts and Choosing Populations" In: Goertz, Gary (Ed.) *Social Science Concepts. A User's Guide (pp. 211–34).* Princeton: Princeton University Press.
Goertz, Gary & Mahoney, James (2006). "Negative Case Selection: The Possibility Principle" In: Goertz, Gary (Ed.) *Social Science Concepts. A User's Guide (pp. 177–210).* Princeton: Princeton University Press.
Goertz, Gary & Mazur, Amy G. (2006). "Mapping Gender and Politics Concepts: Ten Guidelines"

In: Goertz, Gary & Mazur, Amy G. (Eds.), *Politics, Gender and Concepts: Theory and Methodology (pp. 14–43).* Cambridge: Cambridge University Press.
Goldin, Claudia D. (1991). "The Role of World War II in the Rise of Women's Employment" *The American Economic Review*, 81(4): 741–56.
Goody, Jack (1996). "Comparing Family Systems in Europe and Asia: Are There Different Sets of Rules?" *Population and Development Review*, 22(1): 1–20.
Gray, Mark M., Kittilson, Miki Caul & Sandholtz, Wayne (2006). "Women and Globalization: A Study of 180 Countries, 1975–2000" *International Organization,* 60(2): 293–333.
Green, Francis, McIntosh, Steven & Vignoles, Anna (1999). "Overeducation and Skills-Clarifying the Concepts" *CEP Discussion Papers DP0435*, Centre for Economic Performance, LSE.
Greenaway, David & Morrissey, Oliver (1993). "Structural Adjustment and Liberalisation in Developing Countries: What Lessons Have We Learned?" *KYKLOS*, 46(2): 241–61.
Gruenbaum, Ellen (2001). *The Female Circumcision Controversy: An Anthropological Perspective.* Philadelphia, Pennsylvania: University of Pennsylvania Press.
Gündüz-Hoşgör, Ayse & Smits, Jeroen (2008). "Variation in Labor Market Participation of Married Women in Turkey" *Women's Studies International Forum,* 31(2): 104–17.
Gwillim Law (2011). "Statoids. Administrative Divisions of Countries" Accessed on 11/19/2011 through: http://www.statoids.com/yid.html.

H

Habib, Rima R., Nuwayhid, Iman A. & Yeretzian, Joumana S. (2006). "Paid Work and Domestic Labor in Disadvantaged Communities on the Outskirts of Beirut, Lebanon" *Sex Roles,* 55(5): 321–29.
Haddad, Lawrence, Brown, Lynn R., Richter, Andrea & Smith, Lisa (1995). "The Gender Dimensions of Economic Adjustment Policies: Potential Interactions and Evidence to Date" *World Development*, 23(6): 881–96.
Haghighat, Elhum (2005a). "Neopatriarchy, Islam and Female Labour Force Participation: A Reconsideration" *International Journal of Sociology and Social Policy*: 25(10/11): 84–105.
Haghighat, Elhum (2005b). "A Comparative Analysis of Neopatriarchy and Female Labor Force Participation in Islamic Countries" *Electronic Journal of Sociology*, 1(1): 1–26.
Hakim, Catherine (1991). "Grateful Slaves and Self Made Women: Fact and Fantasy in Women's Work Orientations" *European Sociological Review,* 7(2): 101–21.
Hakim, Catherine (1995). "Five Feminist Myths about Women's Employment" *The British Journal of Sociology,* 46(3): 429–55.
Hakim, Catherine (1996). *Key Issues in Women's Work: Female Heterogeneity and the Polarisation of Women's Employment.* London: Athlone Press.
Hale, Sondra (2003). "Sudanese Women in National Service, Militias and at Home" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 195–238).* Boulder, London: Lynne Rienner.
Hancock, Ange-Marie (2007). "When Multiplication Doesn't Equal Quick Addition: Examining Intersectionality as a Research Paradigm" *Perspectives on Politics*, 5(1): 63–79.
Handoussa, Heba, El Sherif, Mahmoud, Tawila, Sahar, Sholkamy, Hania & Zaalouk, Malak (principal contributors) (2005). *Egypt Human Development Report 2005, Choosing our Future: Towards a New Social Contract.* Cairo: Institute of National Planning, Egypt; United Nations Development Programme.
Harding, Sandra (1986). *The Science Question in Feminism.* New York: Cornell University Press.
Harding, Sandra. (1997). "Is There a Feminist Method?" In: Kemp, Sandra & Squires, Judith (Eds.). *Feminisms (pp. 160–170).* Oxford: Oxford University Press.
Harrison, Graham (Ed.) (2005). *Global Encounters. International Political Economy, Development and Globalization.* New York: Palgrave MacMillan.
Hatem, Mervat (1987). "Class and Patriarchy as Competing Paradigms for the Study of Middle Eastern Women" *Comparative Studies in Society and History*, 29(4): 811–18.
Henry, Clement M. & Springborg, Robert (2001). *Globalization and the Politics of Development in the Middle East*. Cambrdige: Cambridge University Press.
Hijab, Nadia (1988). *Womanpower. The Arab Debate on Women at Work.* Cambridge: Cambridge

University Press.
Hijab, Nadia (2001). "Women and Work in the Arab World" In: Joseph, Suad & Susan Slyomovics (Eds.). *Women and Power in the Middle East (pp. 41–51).* Philadelphia: University of Pennsylvania.
Hirschman, Charles & Aghajanian, Akbar (1980). "Women's Labour Force Participation and Socioeconomic Development: The Case of Peninsular Malaysia, 1957–1970" *Journal of Southeast Asian Studies,* XI(1): 30–49.
Hirsi Ali, Ayaan (2006). *The Caged Virgin. An Emancipation Proclamation for Women and Islam.* New York: Free Press.
Hoodfar, Homa (1997). *Between Marriage and the Market. Intimate Politics and Survival in Cairo.* Berkeley, CA: University of California Press.
Hox, Joop (2002). *Multilevel Analysis: Techniques and Applications*. New York: Erlbaum.
Huber, Evelyne, Rueschemeyer, Dietrich & Stephens, John D. (1997). "The Paradoxes of Contemporary Democracy; Formal, Participatory, and Social Dimensions" *Comparative Politics,* 29(3): 323–42.
Huisman, Janine (2011). *Educational Participation in Developing Countries: Multilevel Determinants of Going to School and Dropping Out in the Developing World*. Nijmegen: unpublished PhD-thesis.
Huisman, Janine & Smits, Jeroen (2009). "Effects of Household- and District-Level Factors on Primary School Enrollment in 30 Developing Countries" *World Development*, 37(1): 179–93.
Huntington, Samuel P. (1993). "The Clash of Civilizations?" *Foreign Affairs,* 72(3): 40.
Huntington, Samuel P. (1996). *The Clash of Civilizations and the Remaking of World Order.* New York: Simon & Schuster.
Hunwick, John (1992). "An African Case Study of Political Islam: Nigeria" *Annals of the American Academy of Political and Social Science*, 524(1): 143–55.

I

ILO Laborsta. "Laborsta Internet" Accessed on 1/6/2011 through: http://laborsta.ilo.org/.
Inglehart, Ronald (1997). *Modernization and Postmodernization. Cultural, Economic and Political Change in 43 Societies.* Princeton: Princeton University Press.
Inglehart, Ronald & Baker, Wayne E. (2000). "Modernization, Cultural Change and the Persistence of Traditional Values" *American Sociological Review,* 65(1): 19–51.
Inglehart, Ronald & Norris, Pippa (2003a). "The True Clash of Civilizations" *Foreign Policy Magazine,* 34(2): 67–74.
Inglehart, Ronald & Norris, Pippa. (2003b). *Rising Tide. Gender Equality and Cultural Change Around the World.* Cambridge: Cambridge University Press.
IPUMS (no date). "Integrated Public Use Microdata Series, International" Accessed through: https://international.ipums.org/international/.
Isaacs, Dan (2003). "BBC News. Islam in Nigeria: Simmering tensions" Accessed on 8/31/2009 through: http://newsvote.bbc.co.uk.
IslamToday (2011). "Nigerian President Meets with Sultan of Sokoto & Other Muslim Leaders before Elections" *IslamToday*, 3/28/2011. Accessed through: http://en.islamtoday.net/artshow-233–3992.htm.
ISSA (2011). "International Social Security Association" Accessed on 06/01/2011 through: http://www.issa.int/schema_comparison/branches?curr_node_id=&curr_object_id=&combo_country1=72149&combo_country2=72148.

J

Jaccard, James (2001). *Interaction Effects in Logistic Regression.* Sage University Papers, Series on Quantitative Applications in the Social Sciences. Thousand Oaks, CA: Sage.
Jamal, Amaney A. (2006). "Reassessing Support for Islam and Democracy in the Arab World? Evidence from Egypt and Jordan" *World Affairs*, 169(2): 51–63.
Jansen, Willy (2004). "The Economy of Religious Merit: Women and *Ajr* in Algeria" *The Journal of North African Studies,* 9(4): 1–17.
Jansen, Willy. (2006). "Gender Mainstreaming Policies in Education and Employment in Jordan, Morocco and Turkey; Jordan" In: Verloo, Mieke, Van der Vleuten, Anna, Jansen, Willy & Acar,

Feride (Eds.) *Gender Mainstreaming in Education and Employment (pp. 45–63).* Turin, Italy: European Training Foundation.
Jansen, Willy (2009). "De Machtskansen van Weduwen" *Jaarboek voor Vrouwengeschiedenis 29: Zenobia, Khadîja en Dolle Amina's: Gender en Macht in de Islamitische Geschiedenis (pp. 23–41).* Amsterdam: Uitgeverij Aksant.
Jaquette, Jane S. (1982). "Women and Modernization Theory: A Decade of Feminist Criticism" *World Politics,* 34(2): 267–84.
Jayaratne, Toby Epstein (1983). "The Value Of Quantitative Methodology for Feminist Research" In: Bowles, Gloria & Renate Duelli Klein (Eds.), *Theories of Women's Studies (pp. 140–61).* Boston: Routledge & Kegan Paul.
Jenson, Jane (1997). "Who Cares? Gender and Welfare Regimes" *Social Politics,* 4(2): 182–7.
Johnsdotter, Sara (2003). "Somali Women in Western Exile: Reassessing Female Circumcision in the Light of Islamic Teachings" *Journal of Muslim Minority Affairs,* 23(2): 361–73.
Jones, Kelvyn (2007). Multilevel Analysis: Practical Applications. *Part 2, course / training manual.* Essex Summer School in SSDA: University of Essex.
Jones, Kelvyn & Duncan, Graig (1998). "Modelling Context and Heterogeneity: Applying Multilevel Models" In: Scarbrough, Elinor & Tanenbaum, Eric (Eds.), *Research Strategies in the Social Sciences (pp. 95–123).* Oxford: Oxford University Press.
Jusová, Iveta (2008). "Hirsi Ali and van Gogh's *Submission*: Reinforcing the Islam vs. Women Binary" *Women's Studies International Forum*, 31(2): 148–55.
Jütting, Johannes P., Morrison, Christian, Dayton-Johnson, Jeff & Drechsler, Denis (2008). "Measuring Gender (In)Equality: The OECD Gender, Institutions and Development Data Base" *Journal of Human Development*, 9(1): 65–86.

K

Kabeer, Naila. (1992). "Triple Roles, Gender Roles, Social Relations: The Political Sub-text of Gender Training" *Discussion Paper No. 313, Institute of Development Studies.* Brighton, 1992.
Kahler, Miles & Walter, Barbara F. (Eds.) (2006). *Territoriality and Conflict in an Era of Globalization.* Cambridge: Cambridge University Press.
Kandiyoti, Deniz (1988). "Bargaining with Patriarchy" *Gender and Society,* 2(3): 274–89.
Kandiyoti, Deniz (Ed.) (1991). *Women, Islam and the State.* Basingstoke: Macmillan.
Kapteijns, Lidwien (1998). "Review: New Studies of Women, Gender and Islam: Contextualizing and Historicizing Muslim Women's Lives" *Canadian Journal of African Studies*, 32(3): 586–93.
Kaya, Yunus (2010). "Globalization and Industrialization in 64 Developing Countries, 1980–2003" *Social Forces,* 88(3): 1153–82.
Kazeem, Aramidé, Jensen, Leif & Stokes, C. Shannon (2010). "School Attendance in Nigeria: Understanding the Impact and Intersection of Gender, Urban- Rural Residence, and Socioeconomic Status" *Comparative Education Review*, 54(2): 295–319.
Kenworthy, Lane & Malami, Melissa (1999). "Gender Inequality in Political Representation: A Worldwide Comparative Analysis" *Social Forces,* 78(1): 235–69.
Kerr, Clark, Harbison, Frederick H., Dunlop, John T. & Myers, Charles A. (1960). " Industrialism and industrial man" *International Labour Review,* 71(3): 236–50.
Ketner, Susan, Marjo Buitelaar & Harke Bosma (2004). "Identity Strategies Among Adolescent Girls of Moroccan Descent in the Netherlands" *Identity: An International Journal of Theory and Research,* 4(2): 145–69.
Khatir, Arezoo Esmaeili (2007). "The Effects of Socio-Economic and Cultural Factors on Married Women's Employment in Shiraz" *Conference Paper, Middle East Economic Association, 6th International Conference,* 14–16th March 2007, Zayed University, Dubai.
Khattab, Nabil (2002). "Ethnicity and Female Labour Market Participation: a New Look at the Palestinian Enclave in Israel" *Work, Employment & Society,* 16(1): 91–110.
Kibria, Nazli (1990). "Power, Patriarchy, and Gender Conflict in the Vietnamese Immigrant Community" *Gender & Society*, 4(1): 9–24.
Kienle, Eberhard (1998). "More Than a Response to Islamism: The Political Deliberalization of Egypt in the 1990s" *Middle East Journal,* 52(2): 219–35.
King, Gary, Robert Owen Keohane & Sidney Verba (1994). *Designing Social Inquiry. Scientific*

Inference in Qualitative Research. Princeton: Princeton University Press.
Kotarumalos, Ali (2009). "Party of Indonesia's president officially named winner in parliamentary polls" *The Gaea Times*, 5/10/2009. Accessed through: http://blog.taragana.com.
Kotsadam, Andreas (2011). "Does Informal Eldercare Impede Women's Employment? The Case of European Welfare States" *Feminist Economics*, 17(2): 121–44.
Kravdal, Øystein (2006). "A Simulation-Based Assessment of the Bias Produced When Using Averages From Small DHS Clusters as Contextual Variables in Multilevel Models" *Demographic Research*, 15: article 1. Accessed through: http://www.demographic-research.org/Volumes/Vol15/1/
Kriger, Colleen (1993). "Textile Production and Gender in the Sokoto Caliphate" *Journal of African History,* 34(3): 361–401.
Kritz, Mary M. & Makinwa-Adebusoye, Paulina (1999). "Determinants of Women's Decision-Making Authority in Nigeria: The Ethnic Dimension" *Sociological Forum*, 14(3): 399–424.
Kuepie, Mathias, Christophe J. Nordman & François Roubaud (2009). "Education and Earnings in Urban West Africa" *Journal of Comparative Economics,* 37(3): 491–515.
Kuhn, Thomas (1996). *The Structure of Scientific Revolutions (3rd edition).* Chicago: Chicago University Press.

L

Landman, Todd (2008). *Issues and Methods in Comparative Politics: An Introduction (3rd edition).* London: Routledge.
Langstem, Ray, & Salem, Rania (2008). "Two Approaches to Measuring Women's Work in Developing Countries: A Comparison of Survey Data from Egypt" *Population and Development Review,* 34(2): 283–305.
League of Arab States, Pan Arab Project for Family Health (PAPFam) & Syrian Arab Republic, Office of the Prime Minister, Central Bureau of Statistics (2001). *The Family Health Survey in the Syrian Arab Republic. Principal Report, Annex 2: Survey Questionnaires.* Cairo: The League of Arab States.
Lenski, Gerhard & Nolan, Patrick (1984). "Trajectories of Development: A Test of Ecological-Evolutionary Theory" *Social Forces,* 63(1): 1–23.
Lerner, Daniel (1958). *The Passing of Traditional Society: Modernizing the Middle East.* New York: The Free Press.
Li, Quan & Reuveny, Rafael (2003). "Economic Globalization and Democracy: An Empirical Analysis" *British Journal of Political Science*, 33(1): 29–54.
Lieshout, Robert H. (1993). *Anarchie en Hiërarchie: Een Theorie van Internationale Betrekkingen en Buitenlandse Politiek*. Bussum: Coutinho B.V.
Lincove, Jane Arnold (2008). "Growth, Girls' Education, and Female Labor: A Longitudinal Analysis" *The Journal of Developing Areas,* 41(2): 45–68.
Lindsey, Timothy (1999). "From Rule of Law to Law of the Rulers To Reformation?" In: Lindsey, Timothy (Ed.), *Indonesia: Law and Society.* Sydney: The Federation Press.
Little, Roderick J. A. & Rubin, Donald B. (2002). *Statistical Analysis with Missing Data (2nd edition)*. New York: John Wiley.
Lorber, Judith (2006). "Shifting Paradigms and Challenging Categories" *Social Problems*, 53(4): 448–53.

M

Maddison, Angus (2008). Statistics on World Population, GDP and Per Capita GDP, 1–2008 AD. Accessed on 4/23/2010 through: http://www.ggdc.net/maddison/Maddison.htm.
Mahoney, James & Goertz, Gary (2006). "A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research" *Political Analysis,* 14(3): 227–49.
Malt, Carol (2007). "Museum Feminization? Women and Museums in Jordan". In Moghadam, Valentine M. (Ed.), *From Patriarchy to Empowerment. Women's Participation, Movements, and Rights in the Middle East, North Africa, and South Asia (pp. 215–29).* Syracuse, New York: Syracuse University Press.
Maume, David J. (2006). "Gender Difference in Restricting Work Efforts Because of Family Responsibilities" *Journal of Marriage and Family,* 68(4): 859–69.

Maynard, Mary (1994). *Methods, Practice and Epistemology: The Debate About Feminism and Research. Researching Women's Lives from a Feminist Perspective.* London: Taylor and Francis.
Mazur, Amy G. & Goertz, Gary (2008). "Introduction". In: Goertz, Gary & Mazur, Amy G. (Eds.) *Politics, Gender and Concepts: Theory and Methodology (pp. 1–13).* Cambridge: Cambridge University Press.
McCall, Leslie (2005). "The Complexity of Intersectionality" *Signs: Journal of Women in Culture and Society,* 30(3): 1771–800.
McCloskey, Donald N. (1983). "The Rhetoric of Economics" *Journal of Economic Literature*, 21(2): 481–517.
McCloskey, Deirdre N. & Ziliak, Stephen T. (1996). "The Standard Error of Regressions" *Journal of Economic Literature,* 34(1): 97–114.
Measure DHS (2006). *Model Questionnaire. With Commentary. Basic Documentation Number 2.* Calverton, Maryland: ORC Macro. July 2006.
Mernissi, Fatima (1975). *Beyond the Veil.* New York: John Wiley and Sons.
Mernissi, Fatima (1978). "The Patriarch in the Moroccan Family: Myth or Reality?" In: Allman, James (Ed.). *Women's Status and Fertility in the Muslim World (pp. 312–32).* New York: Praeger Publishers.
Mernissi, Fatima (1987). *The Effect of Modernization on the Male-Female Dynamics in a Muslim Society: Morocco.* Michigan: Ann Arbor.
Mernissi, Fatima (1993). *The Forgotten Queens of Islam.* Minneapolis: University of Minnesota Press.
Mernissi, Fatima (2004). *Sheherazades weblog: De Internetrevolutie in het Traditionele Marokko.* Breda: De Geus.
Metcalfe, Beverly Dawn (2007). "Gender and Human Resource Management in the Middle East" *International Journal of Human Resource Management,* 18(1): 54–73.
Metcalfe, Beverly Dawn (2011). "Women, Empowerment and Development in Arab Gulf States: A Critical Appraisal of Governance, Culture and National Human Resource Development (HRD) Frameworks" *Human Resource Development International,* 14(2): 131–48.
Meyer, Lisa B. (2003). "Economic Globalization and Women's Status in the Labor Market. A Cross-National Investigation of Occupational Sex Segregation and Inequality" *The Sociological Quarterly,* 44(3): 351–83.
Miles, Rebecca (2002). "Employment and Unemployment in Jordan: The Importance of the Gender System" *World Development*, 30(3): 413–27.
Miller, Jane E. & Van der Meulen Rodgers, Yana (2008). "Economic Importance and Statistical Significance: Guidelines for Communicating Empirical Research" *Feminist Economics*, 14(2): 117–49.
Millman, Marcia & Moss Kanter, Rosabeth (Eds.) (1975). *Another Voice. Feminist Perspectives on Social Life and Social Science.* New York: Anchor Press. Partly reprinted in: Harding, Sandra (Ed.) (1987). *Feminism & Methodology (pp. 160–70).* Bloomington: Indiana University Press.
Mincer, Jacob (1962). "Labor Force Participation of Married Women" In: Lewis, H. Gregg. (Ed.) *Aspects of Labor Economics (pp. 63–106).* Princeton, NJ: Princeton University Press.
Mincer, Jacob (1974). *Schooling, Experience and Earnings.* New York: Columbia University Press.
Mishra, Satish C. (team leader) (2004). *National Human Development Report 2004. The Economics of Democracy. Financing Human Development in Indonesia.* Indonesia: BPS-Statistics Indonesia; BAPPENAS; United Nations Development Programme.
Mitchell, Timothy (2001). "Egypt" In: Krieger, Joel (Ed.), *The Oxford Companion to Politics of the World (2nd edition) (pp. 235–7)*. New York: Oxford University Press.
Moghadam, Valentine M. (1990). "Determinants of Female Labor Force Participation in the Middle East and North Africa. *WIDER Working Papers"* Helsinki: World Institute for Development Economics Research of the United Nations University.
Moghadam, Valentine M. (1993). *Modernizing Women. Gender and Social Change in the Middle East.* Boulder, London: Lynne Rienner.
Moghadam, Valentine M. (1996). *Patriarchy and Economic Development. Women's Positions at the End of the Twentieth Century.* Oxford: Clarendon Press.

Moghadam, Valentine M. (1998). *Women, Work, and Economic Reform in the Middle East and North Africa.* Boulder, London: Lynne Rienner.
Moghadam, Valentine M. (2003). *Modernizing Women. Gender and Social Change in the Middle East (2nd edition).* Boulder, London: Lynne Rienner.
Moghadam, Valentine M. (2004). "Towards Gender Equality in the Arab/Middle East Region: Islam, Culture, and Feminist Activism" *Human development report office occasional paper, Background paper for HDR 2004.* UNDP.
Moghadam, Valentine M. (Ed.) (2007). *From Patriarchy to Empowerment. Women's Participation, Movements, and Rights in the Middle East, North Africa, and South Asia.* Syracuse, New York: Syracuse University.
Moghadam, Valentine M. & Senftova, Lucie (2005). "Measuring Women's Empowerment: Participation and Rights in Civil, Political, Social, Economic and Cultural Domains" *International Social Science Journal*, 57(184): 389–412.
Mojab, Shahrzad (2001). "Theorizing the Politics of 'Islamic Feminism'" *Feminist Review*, 69(1): 124–46.
Moon, Bruce E. (2001). "Structural Adjustment Programs" In: Krieger, Joel (Ed.). *The Oxford Companion to Politics of the World (2nd edition) (pp. 806–7).* New York: Oxford University Press.
Moors, Annelies (2004). *Muslim Cultural Politics: What's Islam Got To Do With It?* Amsterdam: Vossiuspers UvA.
Murphy, Emma C. (2003). "Women in Tunisia: Between State Feminism and Economic Reform" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 169–94).* Boulder, London: Lynne Rienner.
Muscatelli, Vito Antonio, Andrew A. Stevenson & Catia Montagna (1995). "Modeling Aggregate Manufactured Exports for Some Asian Newly Industrialized Economies" *The Review of Economics and Statistics*, 77(1): 147–55.
Myntti, Cynthia (1985). "Women, Work, Population and Development in the Yemen Arab Republic" In: Abu Nasr, Julinda, Nabil F. Khoury & Henry T. Azzam (Eds.), *Women, Employment and Development in the Arab World (pp. 39–58).* Berlin: Mouton Publishers.

N

Nabli, Mustapha Kamel & Chamlou, Nadereh (main authors) (2004). *MENA Development Report. Gender and Development in the Middle East and North Africa. Women in the Public Sphere* Washington, D.C.: The World Bank.
Nassar, Heba (2003). "Egypt in Comparative Perspective" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 95–118).* Boulder, London: Lynne Rienner.
Nationsencyclopedia (2009). "Nationsencyclopedia. Ethnic groups – Nigeria" Accessed on 9/2/2009 through: http://www.nationsencyclopedia.com/Africa/Nigerai-ETHNIC-GROUPS.html.
Nationmaster (2011) "Nationmaster.com" Accessed on 4/24/2011 through: http://www.nationmaster.com/statistics/stats&all=1.
Norris, Pippa & Inglehart, Ronald (2002). "Islam & the West: Testing the 'Clash of Civilizations' Thesis" *Faculty Research Working Papers Series,* John F. Kennedy School of Government, Harvard University, April.
Norris, Pippa, Ronald Inglehart (2004). *Sacred and Secular. Religion and Politics Worldwide.* New York: Cambridge University Press.
Nurudeen, Abu & Usman, Abdullahi (2010). "Government Expenditure and Economic Growth in Nigeria, 1970–2008: A Disaggregated Analysis" *Business and Economics Journal*, 2010(4): 1–11.
Nye, Joseph S. Jr. (2000). *Understanding International Conflicts: An Introduction to Theory and History (3rd edition)*. New York: Addison Wesley Longman, Inc.

O

Oakley, Ann & Oakley, Robin (1979). "Sexism in Official Statistics" In: Irvine, John, Ian Miles & Jeff Evans (Eds.), *Demystifying Social Statistics.* London: Pluto.
OECD (2010). "OECD.Statextracts. Gender, Institutions and Development Database 2009"

Accessed on 2/18/2010 through: http://stats.oecd.org/Index.aspx?DatasetCode=GID2.
Ogawa, Naohiro & Ermisch, John F. (1996). "Family Structure, Home Time Demands, and the Employment Patterns of Japanese Married Women" *Journal of Labor Economics*, 14(4): 677–702.
Olmsted, Jennifer (2003). "Reexamining the Fertility Puzzle in MENA" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 73–94).* Boulder, London: Lynne Rienner.
Olmsted, Jennifer (2005). "Is Paid Work the (Only) Answer? Neoliberalism, Arab Women's Well-Being and the Social Contract" *Journal of Middle East Women's Studies,* 1(2): 112–39.
Ong, Aihwa (1991). "The Gender and Labor Politics of Postmodernity" *Annual Review of Anthropology*, 20(1): 279–309.
Olukoshi, Adebayo (2001). "Nigeria" In: Krieger (Ed.). *The Oxford Companion to Politics of the World (2nd edition) (pp. 592–3).* New York: Oxford University Press.
Osman, Osman M. & Ali, Sultan Abou (principal contributors) (2001). *Egypt Human Development Report 2001.* Cairo: Institute of National Planning, Egypt; United Nations Development Programme.
Owen, Roger (2004). *State, Power and Politics in the Making of the Modern Middle East (3rd edition).* London, New York: Routledge.

P

Pampel, Fred C. (2000). *Logistic Regression: A Primer.* Series: Quantitative Applications in the Social Sciences, #132. Thousand Oaks, CA: Sage Publications.
Pampel, Fred C. & Tanaka, Kazuko (1986). "Economic Development and Female Labor Force Participation: A Reconsideration" *Social Forces,* 64(3): 599–619.
PAPFam (no date). "Pan-Arab Project of Family Health" Accessed through: http://www.papfam.org.
Pateman, Carol (1988). *The Sexual Contract.* Cambridge: Polity Press.
Paterson, Lindsay & Goldstein, Harvey (1991). "New Statistical Methods for Analysing Social Structures: An Introduction to Multilevel Models" *British Educational Research Journal*, 17(4): 387–93.
Patung (2006a). "Creeping Sharia Draws Protest" *Indonesiamatters,* 2/1/2006. Accessed through: http://www.indonesiamatters.com/87/creeping-sharia-draws-protests/.
Patung (2006b). "Eighteen Regencies Sharia Bound" *Indonesiamatters*, 5/4/2006. Accessed through: http://www.indonesiamatters.com/320/eighteen-regencies-sharia-bound/.
Patung (2006c). "Freedom of Religion Report" *Indonesiamatters*, 9/3/2006. Accessed through: http://www.indonesiamatters.com/732/freedom-of-religion-report/.
Paxton, Pamela, Melanie M. Hughes & Jennifer L. Green (2006). "The International Women's Movement and Women's Political Representation, 1893–2003" *American Sociological Review*, 71(6): 898–920.
Pepinsky, Thomas B. (2009). "Dominant But Weak. Signs of Underlying Fragility in Nationalist Parties May Benefit Islamic Parties in Future Elections" *Inside Indonesia*, 2009(97). Accessed on 10/28/2009 through: http://insideindonesia.org/content/view/1216/47/.
Pettit, Becky & Hook, Jennifer (2005). "The Structure of Women's Employment in Comparative Perspective" *Social Forces,* 84(2): 779–801.
Pfeffermann, D., C.J. Skinner, D.J. Holmes, H. Goldstein & J. Rasbash (1998). "Weighting for Unequal Selection Probabilities in Multilevel Models" *Journal of the Royal Statistical Society*, 60(1): 23–40.
Pfeifer, Karen & Marsha Pripstein Posusney (2003). "Arab Economies and Globalization: An Overview" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 25–54).* Boulder, London: Lynne Rienner.
Phoenix, Ann & Pattynama, Pamela (2006). "Editorial. Intersectionality" *European Journal of Women's Studies,* 13(3): 187–92.
Pollock, Philip H. (2009). *An SPSS Companion To Political Analysis (3rd edition)*. Washington: CQ Press.

Popper, Karl (1982). *The Open Universe. An Argument for Indeterminism.* London: Hutchinson.
Posusney, Marsha Pripstein & Eleanor Abdella Doumato (2003). "Introduction: The Mixed Blessing of Globalization" In: Posusney, Marsha Pripstein & Doumato, Eleanor Abdella (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 1–22).* Boulder, London: Lynne Rienner.
Prajogo, Daniel I., Tritos Laosirihongthong, Amrik Sohal & Sakun Boon-itt (2007). "Manufacturing Strategies and Innovation Performance in Newly Industrialised Countries" *Industrial Management & Data Systems*, 107(1): 52–68.
Pyle, Jean L. & Ward, Kathryn B. (2003). "Recasting Our Understanding of Gender and Work During Global Restructuring" *International Sociology*, 18(3): 461–89.

Q

Quran (1993). *Al-Qur'an. A Contemporary Translation by Ahmed Ali.* Princeton, New Jersey: Princeton University Press.

R

Radwan, Samir (2002). "Employment and Unemployment in Egypt: Conventional Problems, Unconventional Remedies" *ECES: The Egyptian Center for Economic Studies, Working Paper No. 70.* The Egyptian Center for Economic Studies.
Ragin, Charles (2008). *Redesigning Social Inquiry. Fuzzy Sets and Beyond.* Chicago: The University of Chicago Press.
Ramazanoğlu, Caroline & Holland, Janet (2002). *Feminist Methodology: Challenges and Choices.* London: SAGE.
Rani, Uma & Schmid, Juan Pedro (2008). "Household Characteristics, Employment and Poverty in India" *Working Paper. NADEL, ETH Zurich.*
Rathgeber, Eva M. (1990). "WID, WAD, GAD: Trends in Research and Practice" *The Journal of Developing Areas,* 24(4): 489–502.
Razavi, Shahrashoub & Miller, Carol (1995). "From WID to GAD: Conceptual Shifts in the Women and Development Discourse" *Occasional Paper 1, February 1995,* United Nations Research Institute for Social Development, United Nations Development Programme.
Read, Jen'nan Ghazal (2002). "Challenging Myths of Muslim Women: The Influence of Islam On Arab-American Women's Labor Force Activity" *The Muslim World*, 92(1–2): 19–37.
Read, Jen'nan Ghazal (2003). "The Sources of Gender Role Attitudes among Christian and Muslim Arab-American Women" *Sociology of Religion*, 64(2): 207–22.
Read, Jen'nan Ghazal (2004). "Family, Religion, and Work Among Arab American Women" *Journal of Marriage and Family,* 66(4): 1042–50.
Regt, de, Marina (2009). "Preferences and Prejudices: Employers' Views on Domestic Workers in the Republic of Yemen" *Signs: Journal of Women in Culture and Society*, 34(3): 559–81.
Reinharz, Shulamit (1992). *Feminist Methods in Social Research.* New York: Oxford University Press.
Richards, David L. & Gelleny, Ronald (2007). "Women's Status and Economic Globalization" *International Studies Quarterly,* 51(4): 855–76.
Rihoux, Benoît & Ragin, Charles C. (Eds.) (2009). *Configurational Comparative Methods. Qualitative Comparative Analysis (QCA) and Related Techniques*. Thousand Oaks: Sage Publications.
Rizzo, Helen, Abdel-Latif, Abdel-Hamid & Meyer, Katherine (2007). "The Relationship Between Gender Equality and Democracy: A Comparison of Arab Versus Non-Arab Muslim Societies" *Sociology,* 41(6): 1151–70.
Rodríguez, Germán & Goldman, Noreen (2001). "Improved Estimation Procedures for Multilevel Models with Binary Response: A Case Study" *Journal of the Royal Statistical Society,* 164(2): 339–55.
Rosenberg, Karen E. & Judith A. Howard (2008). "Finding Feminist Sociology: A Review Essay" *Signs: Journal of Women in Culture and Society,* 33(3): 675–96.
Ross, Michael L. (2001). "Does Oil Hinder Democracy?" *World Politics,* 53(3): 325–61.
Ross, Michael L. (2008). "Oil, Islam, and Women" *American Political Science Review,* 102(1): 107–23.
Rudra, Nita (2005). "Globalization and the Strengthening of Democracy in the Developing

World" *American Journal of Political Science*, 49(4): 704–30.
Rukhsana, Zia (2004). *Globalization, Modernization, and Education in Muslim Countries.* New York: Nova Science Publishers.
Ruthven, Malise (1997). *Islam: A Very Short Introduction.* Oxford: Oxford University Press.

S

Sanday, Peggy (1974). "Female Status in the Public Domain" In: Rosaldo, Michelle Z. & Lamphere, Louise (Eds.) *Women, Culture, and Society (pp. 189–206).* Stanford: Stanford University Press.
Scharff, Christina (2011). "Disarticulating Feminism: Individualization, Neoliberalism, and the Othering of 'Muslim Women'" *European Journal of Women's Studies*, 18(2): 119–34.
Schneider, Gerald, Katherine Barbieri & Nils Petter Gleditsch (Eds.) (2003). *Globalization and Armed Conflict*. Lanham, Maryland: Rowman & Littlefield Publishers, Inc.
Scholte, Jan-Aart (2001). "The Globalization of World Politics" In: Baylis, John & Smith, Steve (Eds.), *The Globalization of World Politics: An Introduction to International Relations (2nd edition) (pp. 13–32).* Oxford: Oxford University Press.
Serra, Narcís, Shari Spiegel & Joseph E. Stiglitz (2008). "Introduction: From the Washington Consensus Towards a New Global Governance" In: Serra, Narcís & Joseph E. Stiglitz (Eds.) *The Washington Consensus Reconsidered. Towards a new Global Governance (pp. 3–13).* Oxford: Oxford University Press.
Shakry, Omnia (1998). "Schooled Mothers and Structured Play: Child Rearing in Turn-of-the-Century Egypt" In: Abu-Lughod, Lila (Ed.). *Remaking Women: Feminism and Modernity in The Middle East (pp. 126–170).* Princeton, NJ: Princeton University Press.
Sherkat, Darren E. (2000). "'That They Be Keepers of the Home': The Effect of Conservative Religion on Early and Late Transitions into Housewifery" *Review of Religious Research*, 41(3): 344–58.
Smith, Joanne & Louis, Winnifred (2009). "Group Norms in the Attitude-Behaviour Relationship" *Social and Personality Psychology Compass,* 3(1): 19–35.
Smits, Jeroen (2007). "Family Background and Context Effects on Educational Participation in Five Arab Countries" *NiCE Working Paper 07–106 November 2007.* Nijmegen Center for Economics (NiCE) Institute for Management Research, Radboud University Nijmegen.
Snijders, Tom & Bosker, Roel (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage.
Social Security Online (2011). "Social Security Programs Throughout the World" Accessed on 11/29/2010 through: http://www.ssa.gov/policy/docs/progdesc/ssptw/.
Spierings, Niels (2007). "Boundaries and Opportunities in Women's Economic Identity in Muslim Countries". In: Beckett, Clare, Owen Heathcove & Marie Macey (Eds.). *Negotiating Boundaries? Identities, Sexualities, Diversities (pp. 180–93).* Cambridge: Cambridge Scholars Press.
Spierings, Niels (2010). Een Nieuwe Kijk op Kwantitatieve Methoden in Feministisch Onderzoek. *Tijdschrift voor Genderstudies,* 13(3): 32–44.
Spierings, Niels (2011). "'Arab' or 'Established' Democracies? Egypt's and Tunisia's Post-Revolutions Elections" *Working paper*. Institute for Management Research, Radboud University Nijmegen.
Spierings, Niels (2012a). "The Inclusion of Quantitative Techniques and Diversity in the Mainstream of Feminist Research" *European Journal of Women's Studies,* 19(3). Forthcoming.
Spierings, Niels (2012b). "Modeling the complex dynamics shaping participation inequalities" *Paper Paper prepared for the workshop: "Thinking Big about 'Gender Equality' Policy in the Comparative Politics of Gender".* The ECPR Joint Sessions of Workshops, University of Antwerp, Belgium,10th-15th April, 2012.
Spierings, Niels & Smits, Jeroen (forthcoming). "Two Myths about Temporal-Contextual Effects on Middle Eastern Women's Employment: a Multilevel Analysis of Egypt and Jordan in the last Two Decades" In: Hassan, Aly & Nugent, Jeffrey B. (Eds.). *Confronting Important Labor and Human Capital Issues in the Middle East.* Forthcoming.
Spierings, Niels, Jeroen Smits & Mieke Verloo (2009). "On the Compatibility of Islam and Gender Equality. Effects of Modernization, State Islamization, and Democracy on Women's Labor

Market Participation in 45 Muslim Countries" *Social Indicators Research,* 90(3): 503–22.
Spierings, Niels, Jeroen Smits & Mieke Verloo (2010). "Micro and Macrolevel Determinants of Women's Employment in Six Arab Countries" *Journal of Marriage and Family,* 72(5): 1391–1407.
Spitze, Glenna (1988). "Women's Employment and Family Relations: A Review" *Journal of Marriage and the Family,* 50(3): 595–618.
Stacey, Judith & Thorne, Barrie (1985). "The Missing Feminist Revolution in Sociology" *Social Problems,* 32(4): 301–16.
Standing, Guy (1996). "Cumulative Disadvantage? Women Industrial Workers in Malaysia and the Philippines" In: Moghadam, Valentine M. (Ed.), *Patriarchy and Economic Development. Women's Positions at the End of the Twentieth Century (pp. 269–302).* Oxford: Clarendon.
Stepan, Alfred & Robertson, Graeme B. (2003). "An "Arab" more than "Muslim" Electoral Gap" *Journal of Democracy,* 14(3): 30–44.
Syed, Jawad (2008). "A Context-Specific Perspective of Equal Employment Opportunity in Islamic Societies" *Asia Pacific Journal of Management,* 25(1): 135–51.

T

Tansel, Aysit (2002). "Economic Development and Female Labor Force Participation in Turkey: Time-Series Evidence and Cross-Province Estimates" *ERC Working Papers in Economics 01/05.* Middle East Technical University, Ankara, Turkey.
Tanzania.org (2009) "Economic Survey" Accessed on 12/18/2009 through: http://www.tanzania.go.tz/smz/ocgs/documents/Economic%20Survey/ Economic%20Survey%20table%20.doc.
Teachman, Jay & Crowder, Kyle (2002). "Multilevel Models in Family Research: Some Conceptual and Methodological Issues" *Journal of Marriage and Family*, 64(2): 280–94.
Togunde, Oladimeji R. (1999). "Determinants of Women's Employment in Urban Nigeria: the Impacts of Socio-Cultural Factors" *Journal of Asian and African Studies,* 34(3): 279–97.
Tohidi, Nayereh (1996). "Soviet in Public, Azeri in Private: Gender, Islam, and Nationality in Soviet and Post-Soviet Azerbaijan" *Women's Studies International Forum*, 19(1/2): 111–23.
Tzannatos, Zafiris & Kaur, Iqbal (2003). "Women in the MENA Labor Market: An Eclectic Survey" In: Posusney, Marsha Pripstein & Eleanor Abdella Doumato (Eds.), *Women and Globalization in the Arab Middle East. Gender, Economy & Society (pp. 55–72).* Boulder, London: Lynne Rienner.

U

Udink, Betsy (2006). *Allah & Eva*. Amsterdam: Uitgeverij Augustus.
UNDP Indonesia (2009). "Indonesia Religions Map [map]" Accessed on 08/12/2009 through: http://www.undp.or.id/general/maps/MAP_religions.jpg.

V

Van der Haak, Bregtje (2005). *Saoedische oplossingen*. Deel 1. Tegenlicht documentaire 6 november 2005.Accessed through: http://www.hollanddoc.nl/kijk-luister/documentairemakers/bregtje-van-der-haak.html?playurn=urn:vpro:media:program:86719&currentPage=1.
Van der Lippe, Tanja & Van Dijk, Liset (2002). "Comparative Research on Women's Employment" *Annual Review of Sociology*, 28(1): 221–41.
Van Evera, Stephen (1997). *Guide to Methods for Students of Political Science*. Ithaca: Cornell University Press.
Varea, Carlos (1993). "Marriage, Age at Last Birth and Fertility in a Traditional Moroccan Population" *Journal of Biosocial Science*, 25(1): 1–15.
Vella, Francis (1994). "Gender Roles and Human Capital Investment: The Relationship Between Traditional Attitudes and Female Labour Market Performance" *Economica*, 61(242): 191–211.
Verloo, Mieke (2006). "Multiple Inequalities, Intersectionality and the European Union" *European Journal of Women's Studies*, 13(3): 211–29.
Verloo, Mieke, Anna Van der Vleuten, Willy Jansen & Feride Acar (2006). *Gender Mainstreaming in Education and Employment.* Turin, Italy: European Training Foundation.
Verloo, Mieke & Van der Vleuten, Anna (2009). "The Discursive Logic of Ranking and Benchmarking: Understanding Gender Equality Measures in the European Union" In:

Lombardo, Emanuela, Meier, Petra & Verloo, Mieke (Eds.). *The Discursive Politics of Gender Equality: Stretching, Bending and Policymaking (pp. 166–82).* London: Routledge.
Vidyasagar, Girija & Rea, David M. (2004). "Saudi Women Doctors: Gender and Careers Within Wahhabi Islam and a 'Westernised' Work Culture" *Women's Studies International Forum:* 27(3): 261–80.
Vigilante, Antonio & Allam, Saad Taha (principal contributors) (2003). *Egypt Human Development Report 2003.* Cairo: Institute of National Planning, Egypt; United Nations Development Programme.
Vijverberg, Wim P. M. (1993). "Educational Investments and Returns for Women and Men in Côte d'Ivoire" *The Journal of Human Resources*, 28(4): 933–74.
Villarreal, Andrés & Yu, Wei-hsin (2007). "Economic Globalization and Women's Employment: the Case of Manufacturing Mexico" *American Sociological Review,* 72(3): 365–89.
Vlasbom, Dirk (2011). "Oma, concurrent van de kinderen" *NRC Weekend,* October, 15th/16th 2011: Wetenschap 8–9.

W

Waite, Linda J. (1980). "Working Wives and the Family Life Cycle" *American Journal of Sociology,* 86(2): 272–94.
Waite, Linda J. (1978). "Projecting Female Labor Participation from Sex-Role Attitudes" *Social Science Research,* 7(4): 299–318.
Walby, Sylvia (1992). "Woman and Nation" *International Journal of Comparative Sociology*, 33 (1/2): 81–100.
Walby, Sylvia (1996). "The 'Declining Significance' or 'Changing Forms' of Patriarchy?" In: Moghadam, Valentine M. (Ed.). *Patriarchy and Development. Women's Positions at the End of Twentieth Century (pp. 19–33).* Oxford: Clarendon Press.
Walby, Sylvia (2007). "Complexity Theory, Systems Theory, and Multiple Intersecting Social Inequalities" *Philosophy of the Social Sciences*, 37(4): 449–70.
Walby, Sylvia (2009). *Globalization & Inequalities. Complexities and Contested Modernities.* London, Thousand Oaks, CA: Sage.
Warner, Leah R. (2008). "A Best Practices Guide To Intersectional Approaches In Psychological Research" *Sex Roles*, 59(5–6): 454–63.
WDI (no date), "World databank. World Development Indicators & Global Development Finance" Accessed multiple times from 2/28/2010 through: http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2.
Wejnert, Barbara & Djumabaeva, Almagul (2005). "From Patriarchy to Egalitarianism: Parenting Roles in Democratizing Poland and Kyrgyzstan" *Marriage & Family Review*, 36(3–4): 147–71.
Wekker, Gloria & Lutz, Helma (2001). "Een Hoogvlakte met Koude Winden. De Geschiedenis van het Gender- en Etniciteitsdenken in Nederland" In: Botman, Maaike, Jouwe, Nancy & Wekker, Gloria (Eds.). *Caleidoscopische Visies: de Zwarte, Migranten- en Vluchtelingen Vrouwenbeweging in Nederland (pp. 25–50).* Amsterdam: KIT Publishers.
Westwood, Robert (1997). "Harmony and Patriarchy: The Cultural Basis for 'Paternalistic Headship' Among the Overseas Chinese" *Organization Studies*, 18(3): 445–80.
Wheeler, Raymond H. & Gunter, B.G. (1987). "Change in Spouse Age Difference at Marriage: A Challenge to Traditional Family and Sex Roles?" *The Sociological Quarterly*, 28(3): 411–21.
Whitt, Hugh P. (1986). The Sheaf Coefficient: A Simplified and Expanded Approach. *Social Science Research*, 15(2): 174–89.
Winckler, Onn (2002). "The Demographic Dilemma of the Arab World: The Employment Aspect" *Journal of Contemporary History,* 37(4): 617–36.
Wolf, Diane L. (1990). "Daughters, Decisions and Domination: An Empirical and Conceptual Critique of Household Strategies" *Development and Change*, 21(1): 43–74.
Wooten, Stephen (2003). "Women, Men, and Market Gardens: Gender Relations and Income Generation in Rural Mali" *Human Organization,* 62(2): 166–77.
WorldBank (2005). *The Economic Advancement of Women in Jordan: A Country Gender Assessment.* Accessed on 03/01/2007 through: http://siteresources.worldbank.org/INTMNAREGTOPGENDER/resources/JordanCGA2005.pdf.

WorldBank (2010). *Arab Republic of Egypt. Gender Assessment 2010. Narrowing the Gap. Improving Labor Market Opportunities for Women in Egypt.* Accessed on 10/22/2011 through: https://openknowledge.worldbank.org/bitstream/handle/10986/3003/546980ESW0p1120derReport020100Final.pdf.

X

XTimeLine (2011). "Fulani Empire or the Sokoto Caliphate" Accessed on 12/4/2011 through: http://www.xtimeline.com/evt/view.aspx?id=41806.

Y

Young, R.J.C. (2003). *Postcolonialism: A Very Short Introduction*. Oxford: Oxford University Press.

Yount, Kathryn M. & Li, Li (2009). "Women's ''Justification'' of Domestic Violence in Egypt" *Journal of Marriage and Family,* 71(5): 1125–40.

Yousef, Tarik, M. (2004). "Development, Growth and Policy Reform in the Middle East and North Africa since 1950" *Journal of Economic Perspectives,* 18(3): 91–116.

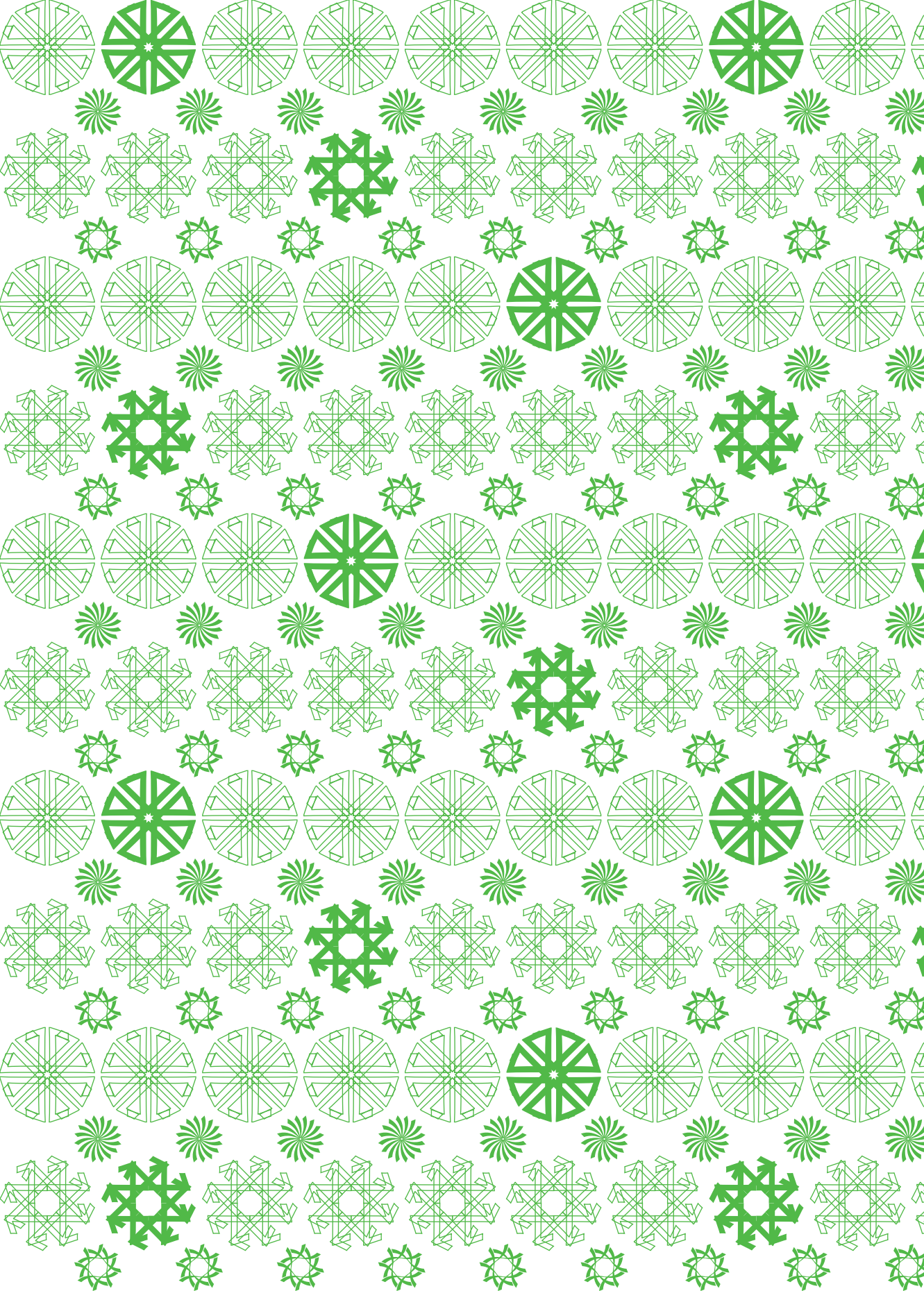
Yuchtman-Yaar, Ephraim & Alkalay, Yasmin (2007). "Religious Zones, Economic Development and Modern Value Orientations: Individual versus Contextual Effects" *Social Science Research,* 36(2): 789–807.

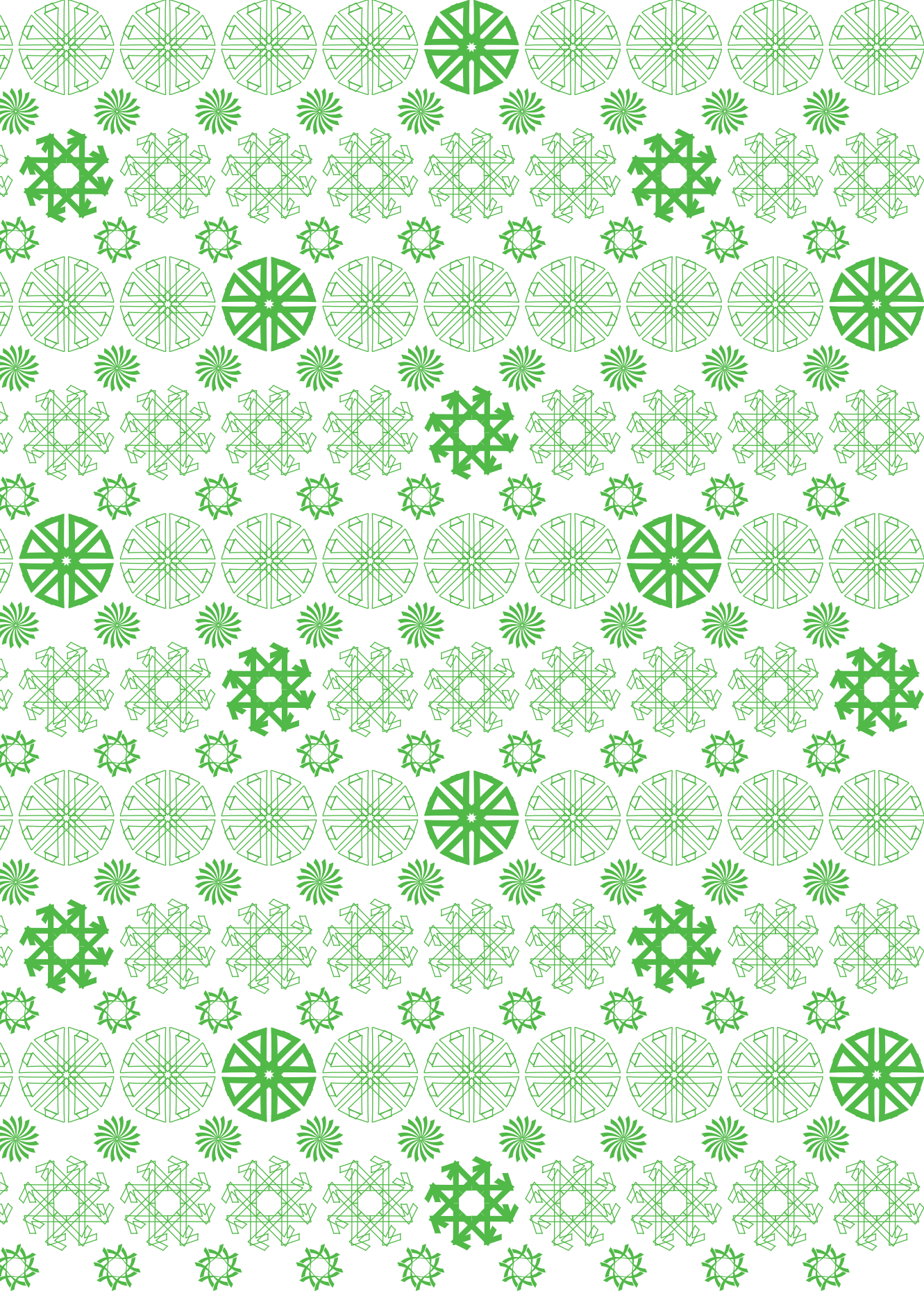
Yuval-Davis, Nira. (2006). "Intersectionality and Feminist Politics" *European Journal of Women's Studies*, 13(3): 193–209.

Z

Zaccarin, Susanna & Donati, Chiara (2008). "The Effects of Sampling Weights in Multilevel Analysis of PISA Data" *Working paper n.119.* Università Degli Studi di Trieste.

Zimmerling, Ruth (2003). "Globalization and Democracy: A Framework for Discussion" In: Zimmerling, Ruth (Ed.). *Democracy and Globalization, The Tampere Club Series Volume 1 (e-publication).* Accessed 9/15/2011 through: http://www.tampereclub.org/e-publications/tcs1.html.





Khadija indachtig
De arbeidsmarktparticipatie van vrouwen in Moslimlanden

Vanuit twee wetenschappelijke en maatschappelijk observaties is dit proefschrift gestart. In de eerste plaats zien we in de politiek, maatschappij en wetenschap zeer vaak dat er wordt gesproken over de abominabele positie van vrouwen in 'de Moslimwereld'. Deze 'Moslimwereld' omvat zo'n vijftig landen en meer dan een miljard mensen. De arbeidsmarktparticipatie varieert echter enorm. Het aantal vrouwen dat buiten de landbouw actief is ligt onder 5% in Jemen en boven de 40% in Nigeria en Kazakstan. Binnen landen zijn de verschillen soms nog groter. In Ouagadougou (Burkina Faso) is ongeveer tweederde van de vrouwen is werkzaam buiten de landbouw, in de Oostelijke Provincie (van Burkina Faso) is het maar 3%. Dit vraagt dus om andere verklaringen dan een simplistische en essentialistische focus op 'de Islamitische cultuur' als allesverklarende kracht. Dit brengt me dan ook meteen bij mijn tweede observatie: het (beperkte) onderzoek naar de arbeidsparticipatie van vrouwen in Moslimlanden is uitermate versnipperd. Dit betekent dat sommige onderzoekers hebben gekeken naar bijvoorbeeld de rol van cultuur, anderen naar de invloed van de economische situatie en een derde groep naar de rol van politiek en beleid. Eenzelfde versnippering zien we als het gaat om de onderzoekseenheid. De ene onderzoeker kijkt naar verschillenen tussen vrouwen in één land, de ander vergelijkt landen, en een derde zoomt in op de specifieke ontwikkelingen in een gebied. Om misverstanden te voorkomen: dat onderzoek is belangrijk en er zit zeer goed onderzoek tussen. Echter, door de versnippering is onze kennis van hoe verschillende invloeden samenhangen en wat de algemene patronen zijn beperkt. We weten niet welke factoren het meeste invloed hebben op de arbeidsparticipatie van vrouwen en hoe deze factoren samenhangen. Beïnvloeden ze bijvoorbeeld ook elkaar en zijn die invloeden afhankelijk van de context? Dit samenspel aan factoren kan alleen onderzocht worden door niet in te zoomen op slechts één of enkele factoren maar door het netwerk als geheel te bestuderen en dat is wat ik in dit proefschrift heb gedaan. Afgeleid uit de twee bovenstaande observaties volgden drie kernvragen die ik heb proberen te beantwoorden:

1) Hoe hoog is de mate van arbeidsparticipatie van vrouwen in Moslimlanden en hoe varieert dit tussen en binnen deze landen en door de tijd?
2) Welke micro-, meso- en macroniveau factoren hebben de (meeste) invloed op de arbeidsparticipatie van vrouwen in Moslimlanden, en hoe beïnvloeden ze deze arbeidsparticipatie?
3) Verschilt de invloed van deze factoren op de arbeidsparticipatie van vrouwen in Moslimlanden per tijd en locatie, en als dat zo is, hoe en waarom?

Om deze vragen te beantwoorden, ben ik begonnen met het formuleren van een viertal theoretische principes dat helpt om de veelheid aan samenhangende invloeden op de arbeidsparticipatie van vrouwen in Moslimlanden in kaart te brengen en te begrijpen. Hierdoor krijgen we niet enkel grip op de factoren die reeds in de literatuur worden genoemd, maar is er ook ruimte om de invloed van deze factoren opnieuw te begrijpen en nieuwe invloeden te detecteren. Allereerst is het startpunt van mijn analysen dat elke vrouw zelf uiteindelijk bepaalt of ze wel of niet de arbeidsmarkt betreedt en bepaald werk uitvoert. De keuze en het resultaat daarvan worden bepaald door andere individuen en structuren in de omgeving, zoals werkgevers, gezinsleden, beleid, maatschappelijke normen en de arbeidsmarktstructuur. Het tweede principe is dat de omgeving van een vrouw te zien is als een aantal concentrische

cirkels, waarbij de vrouw zelf geplaatst is in de context van haar huishouden, dat huishouden is onderdeel van een lokale gemeenschap, welke weer onderdeel is van een land, en dat land is onderdeel van de wereld. Op elke van deze niveaus zijn processen en factoren te vinden die de arbeidsbeslissingen en –posities van vrouwen beïnvloeden. Ten derde kan een kenmerk van de samenleving op drie verschillende wijzen van invloed zijn op de arbeidsparticipatie: er kan sprake zijn van directe invloed (bv. beleid dat vrouwen verbiedt in bepaalde sectoren te werken); er kan sprake zijn van indirecte invloed (bv. economische ontwikkeling zorgt voor hogere onderwijsniveaus en daardoor voor meer arbeidsparticipatie); en er kan sprake zijn van een conditionerend effect waarbij de context de kracht van een kenmerk van de vrouw of het huishouden bepaalt (bv. in meer traditionele omgevingen creëert het niet hebben van kinderen minder extra kansen voor vrouwen om de arbeidsmarkt te betreden). Ten slotte zijn alle invloeden op de arbeidsparticipatie te begrijpen in termen van een drietal condities; aspecten die als ze volledig aanwezig zijn als consequentie hebben dat een vrouw werkzaam is. Dat zijn: behoeften (*needs*), mogelijkheden (*opportunities*) en waarden (*values*). Behoeften verwijzen voornamelijk naar de economische en zorgbehoeften in een huishouden. De eerste duwen een vrouw de arbeidsmarkt op, de tweede houden haar in het huishouden. Ook kan gedacht worden aan de vraag naar arbeid als een maatschappelijke behoefte. Mogelijkheden focussen op de vraag of er (toegankelijk) werk is en of dit aansluit bij de vrouw haar mogelijkheden. Dit omvat bijvoorbeeld de bronnen waaruit een vrouw kan putten om werk te vinden, haar capaciteiten, en de beschikbaarheid van (bepaalde typen) banen. De derde conditie – waarden – is voor een deel onderliggend aan de andere twee omdat de dominante waarden bijvoorbeeld bepalen wie wordt gezien als zorgbehoevend en welke banen geschikt zijn voor vrouwen. Daarnaast kunnen waarden zich manifesteren in beleid, maatschappelijke normen en door mensen geïnternaliseerd zijn en zo ook meer directe invloed om arbeidsbeslissingen hebben.

Deze vier principes zijn bruikbaar in het verklaren van allerlei vormen van participatie (electoraal, sociaal, economisch), waaronder verschillende aspecten van arbeidsparticipatie. In dit proefschrift heb ik ze echter toespitst en geconcretiseerd voor één specifiek onderdeel daarvan: vrouwen en betaald werk buiten de landbouw. De vertaling van de principes varieert namelijk voor bijvoorbeeld agrarische en niet-agrarische arbeidsparticipatie, en deze als één onderzoeken zou leiden tot vertekende resultaten. Daarnaast hebben verschillende vormen van arbeidsparticipatie andere effecten op de positie van vrouwen (bv. betaald versus onbetaald werk) en heb ik er voor gekozen te kiezen voor de vorm die de positie van vrouwen in potentie het meest kan versterken: betaalde arbeid.

Concreet leveren de vier principes tal van nieuwe inzichten en verwachtingen op. Ik benoem er hier slechts enkele die als voorbeeld dienen. Zo verwacht ik een sterk positief effect van het onderwijsniveau van vrouwen op hun kansen op de arbeidsmarkt omdat het hun mogelijkheden vergroot. Dit in tegenstelling tot het idee van sommige dat primair onderwijs een negatief effect heeft omdat de extra kennis relatief meer oplevert in het huishouden dan op de arbeidsmarkt. Economische ontwikkeling zie ik ook als een positieve kracht, maar dan één die werkt via bijvoorbeeld meer mogelijkheden door extra werkgelegenheid in feminiene sectoren en modernisering van maatschappelijke waardepatronen en normen. Tegelijkertijd verwacht ik dat economische ontwikkeling ook de economische behoefte kan verminderen, wat juist een negatieve invloed heeft op arbeidsparticipatie. Langs dezelfde gedachte verwacht ik ook dat processen als globalisering geen eenduidige invloed hebben. Bijvoorbeeld het liberaliseren van de arbeidsmarkt onder druk van het IMF en de Wereldbank kan juist leiden tot de afbraak van overheidswerkgelegenheid, een sector waar vaak relatief veel vrouwen werken.

Op het huishoudenniveau laat het theoretisch kader sterk zien dat de structuur van een huishouden erg belangrijk kan zijn. Gegeven een klassiek patriarchaal waardepatroon dienen mannen voor het inkomen te zorgen en vrouwen voor het huishouden. Dit zien we al terug in het vaak genoemde beperkende effect van het hebben van kinderen, maar vertaalt zich naar nog veel meer factoren. Bijvoorbeeld, de economische behoefte zal minder een rol spelen voor vrouwen om de arbeidsmarkt te betreden als er volwassenen mannen zijn die nog kunnen gaan werken. Dus in huishoudens met meer volwassen mannen verwacht ik dat de arbeidsparticipatie

van vrouwen lager is. Aan de andere kant, de zorgbehoefte kan juist makkelijker ingevuld worden als er meer volwassen vrouwen in het huishouden zijn. Van hun aanwezigheid kan dus verwacht worden dat het de arbeidsparticipatie van vrouwen bevordert. Wat betreft de invloed van religie, is religie een bron van waarden die zich dus op verschillende manieren kunnen manifesteren en dus kan religie meerdere invloeden tegelijkertijd hebben. Als een meer traditionele tak van een religie dominant is in een gemeenschap, dan zijn de normen restrictiever en kan verwacht worden dat vrouwen minder werken. Dit betekent dat de focus op het type religie en Islam ligt en dat ik niet verwacht dat religieuze denominatie een goede verklaarder is. Een tweede invloed van religie kan werken via de institutionalisering van ideeën. Zo verwacht ik dat gebieden waar bijvoorbeeld de *Shari'a* onderdeel van het rechtssysteem is, de arbeidsparticipatie lager is.

De voorbeelden hierboven gaan in op directe en indirecte effecten van micro- en macroniveau behoeften, mogelijkheden en waarden; zoals geschetst is er ook het conditionerende effect. Voor het effect van onderwijsniveau verwacht ik bijvoorbeeld dat het relatieve effect kleiner is in gebieden waar er meer service sector banen zijn zolang er een tekort aan hogeropgeleide mensen is. In die situatie zullen namelijk ook minderhoogopgeleide vrouwen aangenomen worden omdat de pool van hogeropgeleiden reeds is uitgeput. Dit verkleint het gat tussen de lager en hogeropgeleiden. Vergelijkbaar, verwacht ik dat het effect van onderwijs groter is in meer traditionele gebieden. Hogeropgeleiden zullen zich overal redelijk weten te ontworstelen aan maatschappelijke normen, maar als die normen zwakker zijn is er ook meer ruimte voor lageropgeleide vrouwen om de arbeidsmarkt te betreden. Ik verwacht ook dat er sterke conditionele effecten bestaan voor de invloed van de eerdergenoemde huishoudstructuren, waarbij die invloed afhankelijk is van de kracht en vorm van het patriarchale systeem in een land of gebied. Bijvoorbeeld, de aanwezig van volwassenen mannen wordt verwacht minder sterk te zijn als het kostwinner–zorgdrageronderscheid minder sterk langs de sekselijn loopt en vrouwen bijvoorbeeld meer in beeld zijn als huishoudleden die een inkomen kunnen verwerven. Een andere verwachting is dat in minder traditionele gebieden vrouwen zonder kinderen relatief vaker betaald werk hebben dan vrouwen met kinderen, dan in meer traditionele gebieden. Ofwel, dat de invloed van het hebben van kinderen groter is in minder traditionele gebieden. De verklaring hiervoor is dat in meer traditionele gebieden het niet zo veel uitmaakt of je kinderen hebt of niet: als vrouw wordt niet van je verwacht dat je de arbeidsmarkt betreedt. Deze norm is wat losser in minder traditionele gebieden en dan voor de vrouwen die geen moederrol hebben in het bijzonder.

Om al deze en andere verwachtingen over (het samenspel van) verklarende factoren te toetsen maak ik in dit onderzoek gebruik van enkele tientallen enquêtes die in totaal informatie verschaffen over ongeveer 300.000 vrouwen, uit meer dan 225.000 huishoudens. Deze huishoudens zijn verdeeld over 383 provincies van 28 (van de ongeveer 50) Moslimlanden uit verschillende hoeken van de wereld. De landen zijn: Algerije, Azerbeidjaan, Bangladesh, Burkina Faso, Djibouti, Egypte, Eritrea, Guinee, Indonesië, Jemen, Jordanië, Kazakstan, Kirgizië, Libanon, Maleisië, Mali, Mauritanië, Marokko, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Tsjaad, Tunesië, Turkije en Zanzibar. Op basis van de huishoudenquêtes van DHS, PAPFam en IPUMS zijn alle vrouwen geselecteerd die niet op school zitten en geen handicap hebben. Van deze vrouwen en hun huishoudens zijn socio-economische, demografische en religieusculturele kenmerken ontgonnen van de enquêtes. De provincieniveauvariabelen zijn voornamelijk gebaseerd op aggregatie van de enquêtedata en daarmee meet ik economische ontwikkeling, arbeidsmarktstructuren en maatschappelijke normen. Voor de casestudies van Egypte, Indonesië en Nigeria maak ik ook gebruik van andere provinciedata, zoals die van de lokale UNDP bureaus, verkiezingsuitslagen en secundaire literatuur over religieuze instituties en groepen. De data over de landen is ook afkomstig uit externe datasets en gekoppeld aan de enquêtedata. Het betreft hier enkele economische en politieke variabelen.

Deze rijke micro- en provincieniveaudata voor een groot aantal landen en de focus op enkel Moslimlanden (een focus die het risico wegneemt dat er weer simplistische vergelijkingen tussen Moslimlanden en het Westen als twee monolithische blokken worden gemaakt) maken het in

het bijzonder mogelijk om te onderzoeken wat de diversiteit in arbeidsparticipatie is, en of en hoe de complexe samenhang van verklaringen vorm krijgt. Met deze data worden diversiteit en complexiteit een empirische te onderzoeken fenomeen en niet een assumptie dat dit wel of niet bestaat. De diversiteit is onderzocht door simpele descriptieven voor (sub)groepen in de steekproef te presenteren en enkele bivariate analysen uit te voeren. Om te onderzoeken welke factoren de arbeidsparticipatie van vrouwen kunnen verklaren en hoe deze samenhangen, is er gebruik gemaakt van logistische multiniveau-analyse (vier niveaus), met crossniveau-interactietermen.

Op basis van deze data en theorie zijn tal van analysen uitgevoerd. De belangrijkste resultaten zullen hier uitgelicht worden. Met betrekking tot de eerste vraag laten de data een sterke empirische diversiteit zien. De variatie in arbeidsparticipatie van vrouwen in Moslimlanden varieert zo sterk tussen de landen, provincies en vrouwen dat het niet mogelijk is om te spreken van een algemeen niveau van arbeidsparticipatie in 'de Moslimwereld'. In deze steekproef is ongeveer 1 op de 4 vrouwen betaald actief op de niet-agrarische arbeidsmarkt, maar percentages variëren van 3,6% in Jemen, 8,7% in Djibouti en 9,1% in Algerije tot 43,5% in Zanzibar, 45,8% in Kazakstan en 47,4% in Nigeria. Dalen we af naar het provincieniveau dan blijken zelfs bovengenoemde cijfers nog veel diversiteit te maskeren. In de meeste landen was het verschil tussen de provincie met de hoogste en laagste arbeidsparticipatie minimaal 20 procentpunten. In 90 van de 383 provincies, uit 13 verschillende landen, lag de arbeidsparticipatie onder de 10% en in 28 provincies – uit 12 landen – was het meer dan 50%. In twee (Nigeriaanse) provincies lag de arbeidsparticipatie van vrouwen boven de 75%. Voor vijf landen (Bangladesh, Egypte, Indonesië, Jordanië en Nigeria) is er ook een vergelijking gemaakt tussen vier punten in de tijd, zo ongeveer tussen 1990 en 2008. Hieruit blijkt dat er ook geen sprake is van een duidelijk stijgende trend. Alleen voor Nigeria wordt een dergelijk patroon waargenomen met een arbeidsparticipatie van ongeveer 30% in 1990 en richting de 50% in 2008. Algemeenheden houden geen stand en simplistische retoriek en generalisaties, zoals het schetsen van een exemplarisch land "Islamistan" wat Ayaan Hirsi Ali doet in *De Maagdenkooi,* doen ernstig afbreuk aan de werkelijk.

De resultaten aangaande de tweede vraag, over de (belangrijkste) invloeden op de arbeidsparticipatie van vrouwen, zijn te vangen in het idee van *gestructureerde veelheid*. Met andere woorden: menig factor heeft invloed, maar elke invloed kan begrepen worden in termen van behoeften, mogelijkheden en waarden.

Op het niveau van het individu en huishouden manifesteert het belang van economische behoeften zich vooral in een negatief effect van het hebben van een partner en het positieve effect van huishoudhoofd zijn. In het Midden-Oosten en Centraal Azië is de arbeidsparticipatie van vrouwen tevens lager als er meer volwassen mannen in het huishouden wonen. Het beperkende effect van zorgbehoeften, en hoe die (voornamelijk) drukken op de arbeidsparticipatie van vrouwen, werd weerspiegeld in een negatieve relatie tussen het hebben van (in het bijzonder jonge) kinderen en arbeidsparticipatie, alsook de positieve invloed van de aanwezigheid van meer volwassen vrouwen. In het Midden-Oosten lijkt ook de aanwezigheid van oudere gezinsleden de zorgbehoefte zodanig te verhogen dat het vrouwen beperkt in het betreden van de arbeidsmarkt. In dezelfde regio blijken kinderen die geen onderdeel zijn van de bloedlijn van het huishoudenhoofd echter minder zwaar te drukken op arbeidsparticipatie van vrouwen dan andere kinderen. Of de kinderen jongens of meisjes zijn leek niet van belang.

De mogelijkheden van vrouwen, in termen van vaardigheden en bronnen, hadden ook duidelijk een positief effect op de arbeidsparticipatie. In het bijzonder het onderwijsniveau van vrouwen is van grote invloed. Van alle factoren had het onderwijsniveau het meeste invloed en elke stap extra onderwijs (primair, secundair, tertiair) draagt bij aan een grotere kans op een betaalde baan. Het effect mag verschillen per context (zie Vraag 3 verderop), maar het effect is overwegend positief. Het moet tegelijkertijd niet vergeten worden dan van alle vrouwen die een betaalde baan heeft een ongeveer even groot deel geen onderwijs heeft als dat tertiair onderwijs heeft gevolgd. Het beroep van de partner is gezien als het sociaal netwerk waarover een vrouw beschikt in het vinden van een baan, en ook dat lijkt de kansen op een baan te

verhogen. De aanwezigheid van meer broers leek geen algemeen beperkend effect te hebben op de benutting van huishoudbronnen.

De laatste groep variabelen was er op gericht om de (geïnternaliseerde) waardepatronen in een huishouden te meten. Religieuze denominatie bleek geen goede indicator te zijn en in een substantieel aantal landen – waaronder in meer detail bestudeerd Indonesië en Nigeria – lag de arbeidsparticipatie van Moslimvrouwen hoger dan die van Christelijke vrouwen. Maten voor meer concrete waardepatronen daarentegen zijn een betere voorspeller. Vrouwen wier partner beduidend ouder is en vrouwen in polygyne en niet-kerngezinnen hadden lagere arbeidsratio's. Voor de leeftijd waarop een vrouw haar eerste kind baarde waren de resultaten minder eenduidig. Wat betreft de individuele en huishoudinvloeden laat dit onderzoek onder andere zien dat (1) onderwijs één van de allerbelangrijkste factoren is, en ook bij lagere onderwijsniveaus een positief effect heeft op vrouwen hun mogelijkheden; (2) gezien de waardepatronen, naast het hebben van kinderen en een partner, er ook een belangrijke rol is weggelegd voor de verdere samenstelling van het huishouden in het vormen van de economische en –zorgbehoeften en dus de arbeidsparticipatie van vrouwen; (3) religieuze denominatie een slechte indicator is voor waardepatronen en een focus op Islam vs. Christendom kortzichtig en simplistisch is; en (4) het effect van microniveaufactoren contextafhankelijk is (zie Vraag 3), maar tegelijkertijd algemene verbanden laat zien als bij onderwijs en de aanwezigheid van een partner en andere volwassen vrouwen.

Voor het provincie-, land- en globale niveau zijn de resultaten in dit proefschrift evenzo veelduidig en geven ze veel inzicht in de processen die de arbeidsparticipatie van vrouwen beïnvloeden. De behoefte aan arbeid op het provincieniveau creëert duidelijk kansen voor vrouwen zolang het banen zijn die volgens de maatschappelijke normen bij vrouwen passen (service sector en lichte handenarbeid zoals de voedsel- en textielindustrie), en er niet te veel mannen werkloos zijn. Voornamelijk de hogeropgeleide vrouwen lijken te profiteren van extra banen. De mogelijkheden van vrouwen lijken tevens groter in stedelijke gebieden. Economische ontwikkeling van een gebied zorgt echter niet alleen voor extra banen, maar heeft ook een positief effect op de arbeidsparticipatie door veranderende waardepatronen en het creëert meer mogelijkheden voor vrouwen doordat hun opleidingsniveau stijgt. Tegelijkertijd lijkt economische ontwikkeling samen te hangen met de economische behoeften, wat verklaart dat er na het wegfilteren van bovenstaande effecten een negatief verband tussen economische ontwikkeling en arbeidsparticipatie (buiten de landbouw) bestaat.

Betreffende de waarden, blijkt dat de dominantie van Islam in de provincies geen goede predictor is van arbeidsparticipatie. Wel duiden de resultaten erop dat de incorporatie van conservatieve Islam in de landelijke of provinciale wetgeving (bv *Shari'a*) een negatief effect heeft op de arbeidsparticipatie van vrouwen, en de casestudie van Indonesië duidt er ook op dat in gebieden waar een meer conservatieve vorm van Islam de dominante religie is minder vrouwen actief zijn. Ook is het zo dat in gebieden waar vrouwen minder zichtbaar zijn in de publieke ruimte, de kans voor elke individuele vrouw om een baan te hebben aanzienlijk kleiner is. De casestudie voor Egypte gaf ook meer inzicht in de complexe invloed van land- en wereldniveaufactoren. Hieruit bleek dat het economisch privatiseringsbeleid vanuit het IMF en de Wereldbank als ook de terroristische aanslagen (deels als reactie op een gepercipieerde invasie van Westerse waarden en machten) een negatief effect hebben op de arbeidsparticipatie in de provincies waar bepaalde arbeidsmarkten groot zijn. De aanslagen lijken bijvoorbeeld vooral veel schade gedaan te hebben aan de arbeidsparticipatie in de toeristische provincies.

Voor de meso- en macro-invloeden (provincie, land, globaal) zijn enkele van de belangrijkste bevindingen van dit onderzoek dat (1) processen als economische ontwikkeling, globalisering en modernisering uiteengerafeld moeten worden om te begrijpen wat de verschillende en soms tegengestelde effecten van deze processen op de arbeidsparticipatie van vrouwen zijn; (2) dat de beschikbaarheid van banen cruciaal is, maar dat deze beschikbaarheid afhankelijk is van de lokale normen over wat geschikte banen zijn, die zowel de preferenties van vrouwen en werkgevers bepalen; (3) de nabijheid van banen en normen (of meer algemeen: verklarende factoren) van groot belang is in het begrijpen van wie door de contextvariabelen wordt beïnvloed, wat te zien is in het belang van de provincievariabelen boven de landvariabelen en het

indirecte of getrapte effect van de globale processen; en (4) religie een belangrijke rol speelt, maar enkel een beperkend effect heeft of de arbeidsparticipatie als conservatieve elementen geïnstitutionaliseerd worden in beleid of maatschappelijke normen.

De derde en laatste vraag van dit proefschrift richtte zich op of en hoe factoren in invloed kunnen variëren als de omstandigheden anders zijn. De kernconclusie is er een van *gegeneraliseerde contextafhankelijkheid*: de effecten van in ieder geval het onderwijsniveau en samenstelling van het huishouden zijn afhankelijk van economische, culturele en politieke omstandigheden. Daarbij is het niet zo dat dezelfde factoren sterk tegengestelden effecten laten zien, maar deze factoren hebben soms (het verwachte) effect en soms niet, en de kracht van het effect varieert per context.

Onderwijs heeft grofweg altijd een positief effect, maar dat effect varieert geografisch en door de tijd, met een aantal vrij duidelijke patronen. Als het aantal hoogopgeleiden (tertiair) mensen kleiner is dan de vraag naar hoog (tertiair) opgeleiden, dan kunnen hogeropgeleide vrouwen relatief gemakkelijk een baan vinden. Als er relatief meer banen bij komen (meer urbanisatie, meer service sector, minder werkloze mannen), dan komt dit vooral ten gunste van de minderhoogopgeleide vrouwen. Het statistische effect van onderwijs is dan kleiner. Echter als er een overschot aan hoogopgeleide mensen is, dan vergroot het gat tussen hoog- en lageropgeleide vrouwen zodra er extra arbeidsmogelijkheden zijn. Dit is anders voor extra banen in de lichte handarbeid. Deze komen voornamelijk ten gunste van de hoogstopgeleide vrouwen. Een goede verklaring hiervoor lijkt te zijn dat er hoogopgeleide vrouwen zijn die wel willen werken, maar niet buitenshuis; dan biedt juist deze sector mogelijkheden om thuis aan de slag te gaan. Naast de arbeidsmarktstructuren bleken ook normen belangrijk in het vormen van de toegevoegde waarde van onderwijs. De resultaten ondersteunen voornamelijk het idee dat vrouwen met tertiair onderwijs zich sterker weten te ontworstelen aan maatschappelijke normen en die normen dus weinig verschil maken. Echter, de invloed van deze normen lijkt sterker voor vrouwen met een lager opleidingsniveau. Voor onderwijs in zijn algemeenheid lijkt het zo te zijn dat de hoogstopgeleide vrouwen relatief immuun zijn voor de omgeving (danwel omdat ze zelf meer vrijgevochten zijn, danwel omdat werkgevers hogeropgeleide vrouwen prefereren), maar dat voor de lageropgeleide vrouwen de omstandigheden wel vrij belangrijk zijn.

De invloed van huishoudstructuren is vooral gekoppeld aan economische en patriarchale verschillen tussen de subregio's (het groter Midden-Oosten, Central Azië, Sub-Sahara Afrika, Zuidoost Azië). Daaruit is bijvoorbeeld af te leiden dat als de arbeidsdeling strikter is (vrouwen regelen het huishouden, mannen verdienen een inkomen) en de zorgtaken breder zijn dan alleen de zorg voor kinderen (Midden-Oosten), dan is het effect van de zorgbehoeften (voornamelijk de aanwezigheid van kinderen) zwakker. Ook zagen we dat onder economisch zwaardere omstandigheden (Sub-Sahara Afrika) de zorgbalans (de aanwezigheid van kinderen en volwassen vrouwen) minder van invloed is op de arbeidsparticipatie. Het verschil in effect tussen het hebben van kinderen die wel of geen onderdeel zijn van de bloedlijn van het hoofd van het huishouden blijkt ook groter naarmate de patrilineaire normen sterker zijn (Midden-Oosten).

Dit proefschrift maakt helder dat contextafhankelijkheid niet een excuus mag zijn voor een relativistische assumptie. Effecten kunnen algemene patronen laten zien en tegelijkertijd een variërend effect hebben. Juist die variatie in effecten kan ook weer begrepen worden in algemene, maar meer genuanceerde, verbanden. In dit onderzoek is dit theoretisch doorgeëxerceerd en empirisch onderzocht. Een aantal patronen heeft dit werk reeds blootgelegd, maar meer theoretische en empirische aandacht is zeker noodzakelijk om de complexiteit van invloeden op de arbeidsparticipatie van vrouwen te begrijpen.

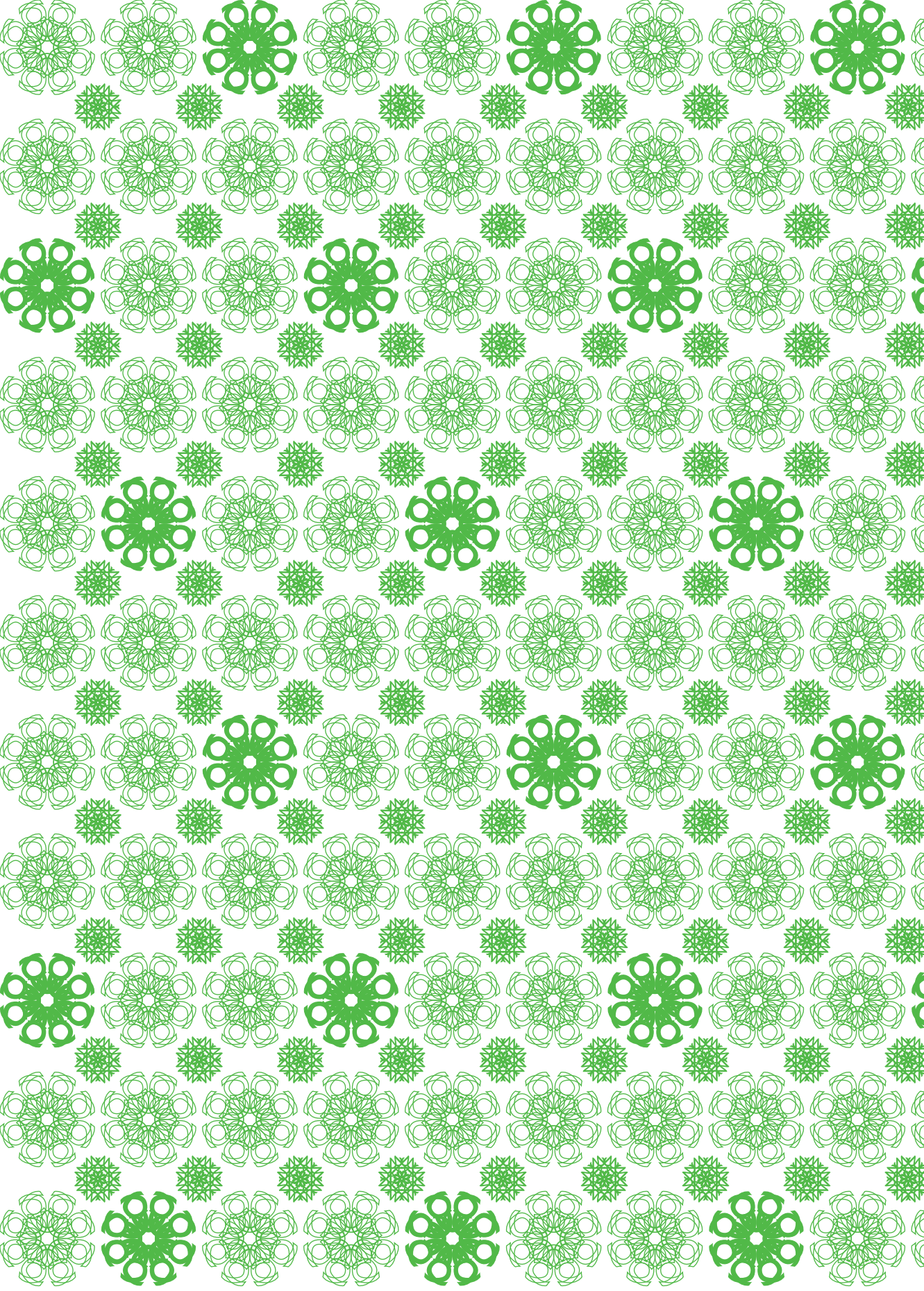
Al met al slaat dit proefschrift een brug tussen verschillende literaturen over de arbeidsparticipatie van vrouwen in Moslimlanden en verschillende methodologische tradities, en zodoende biedt het een nieuw inzicht in welke factoren de arbeidsparticipatie van vrouwen beïnvloeden en hoe deze factoren met elkaar verweven zijn. Terwijl de focus op arbeidsparticipatie, vrouwen en Moslimlanden ligt, is de meer algemene benadering evenzogoed toepasbaar op andere vormen van participatie, andere groepen, en andere landen. Ook daarvoor

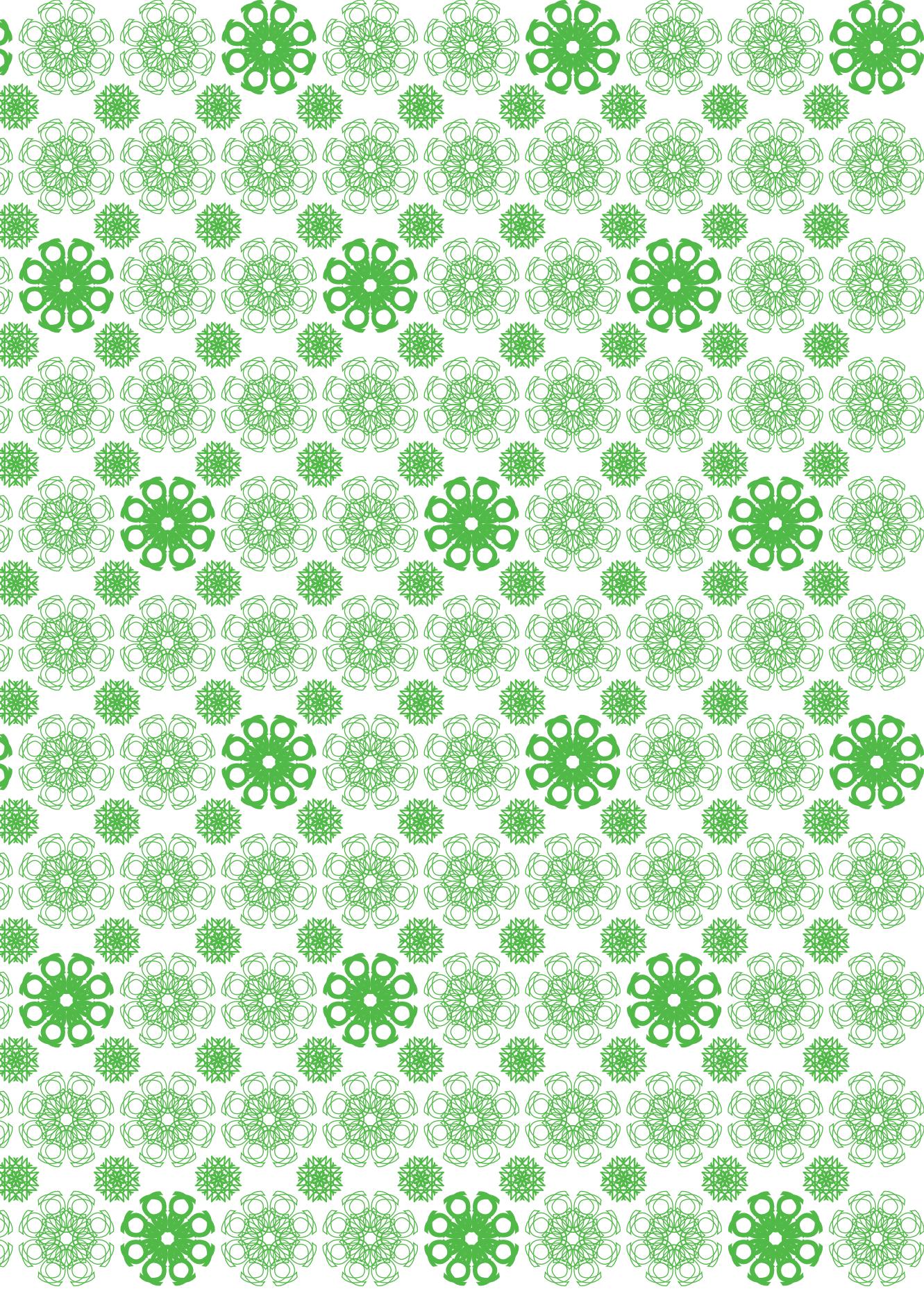
zou het zinvol zijn om juist de complexiteit aan invloeden beter te begrijpen en in kaart te brengen.

Het belang van deze exercitie strekt verder dan enkel meer wetenschappelijk inzicht. Voor het maatschappelijk-politieke debat laat dit proefschrift de grote diversiteit tussen en in Moslimlanden zien en daarmee wordt het helder dat er niet simpelweg gesproken kan worden over deze landen als één homogeen blok. Evenmin is er sprake van een eenduidig (negatief) effect van Islam. Het maken van dergelijke claims hebben misschien een politiek doel, maar brengt de werkelijkheid enorme schade toe. Dit neemt niet weg dat er voor veel van de vrouwen in deze landen (als in zo'n beetje elk land op deze aardbol) nog behoorlijk wat vooruitgang te boeken is, onder andere in termen van economische onafhankelijkheid.

Gericht en geïnformeerd beleid kan hier zeker aan bijdragen. Dit onderzoek is niet het eerste dat wijst op het belang van de creatie van banen, het verzorgen van onderwijs en het bevechten van patriarchale normen. Echter, de ideeën van gestructureerde veelheid en gegeneraliseerde contextafhankelijkheid brengen een verfijning aan in dit soort beleidsadviezen en ze helpen om bloot te leggen wat mogelijke (negatieve) bijeffecten zijn en welke groepen voornamelijk bereikt lijken te worden. Een eerste voorbeeld is dat het verzorgen van kinderopvangfaciliteiten vooral vrouwen in minder traditionele omgevingen zal helpen, omdat daar de zorgrol zich minder sterk richt op andere huishoudtaken die niet worden weggenomen door kinderopvang. Het creëren van banen werkt voornamelijk als rekening wordt gehouden met de preferenties van werknemers en de vrouwen, daarbij moeten dus de lokale gendernormen over wat toelaatbaar is, ook qua reizen, in acht genomen worden. De focus op onderwijs levert een derde voorbeeld: hoger onderwijs lijkt de kansen van vrouwen aanzienlijk te vergroten, niet alleen ten opzichte van lageropgeleide vrouwen, maar hogeropgeleide vrouwen lijken ook regelmatig geprefereerd over minderhoogopgeleide mannen. Het opleiden van vrouwen is in dat licht voornamelijk effectief in gebieden met relatief weinig hoogopgeleide mannen. Primair onderwijs, daarentegen, is vooral effectief in minder traditionele gebieden. In de meer traditionele gebieden wordt er pas meer effect gesorteerd als er ook vervolgopleidingen worden genoten. Elk van deze voorbeelden wijst ook in een meer algemeen patroon waarbij de meeste maatregelen vooral ten goede lijken te komen aan de vrouwen die toch al in een relatief betere situatie zitten. Daarmee kan de ongelijkheid onder vrouwen verder groeien.

Dit proefschrift draagt de naam van Khadija – de eerste Moslim, de eerste vrouw van Mohammed, een economisch onafhankelijke handelsvrouw. Zij blijkt niet alleen een legende of haast mythische figuur; zij is een realistisch voorbeeld voor vrouwen in Moslimlanden. Vrouwen van wie dit proefschrift in kaart heeft gebracht wat hun arbeidsmarktbeslissingen en – positie beïnvloedt.





Curriculum Vitae

Niels Spierings was born on May 2nd, 1983 in Oss (The Netherlands). He received secondary education at the Maasland College in Oss from 1995 through 2001, graduating cum laude. In 2001 he started his study of Political Science at Radboud University Nijmegen and he obtained his Master of Science degree in 2005, graduating cum laude. During his studies, he has been active as a student representative and board member of student organisations in the department of Political Science, the Nijmegen School of Management, and the Institute for Gender Studies. Between 2005 and 2008, Niels worked on an IMR/White Raven scholarship as junior researcher and teacher in the departments of Political Science and Economics at Radboud University. He obtained an NWO-grant for a PhD project at the same departments, running from September 2008 through August 2013 (0.8 fte), and continued his teaching position in Political Science (0.2 fte). Niels has mainly taught courses on research methodology, comparative politics, gender, and Islam & the Middle East. In 2010 he has been awarded the Radboud University Young Teacher of the Year Award. On the topic of his PhD project, Niels has published several scientific publications in, amongst others, *Journal of Marriage and Family*, *European Journal of Women's Studies*, and *Feminist Economics* (accepted for publication). In addition, he has been working on several (collaborative) projects on political participation, democratic & gender equality attitudes, and social media, which have led to conference papers and publications in for instance *Electoral Studies* and *Mens & Maatschappij*.